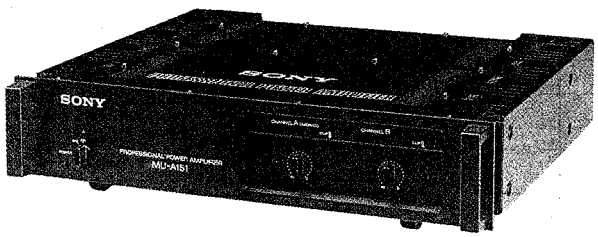
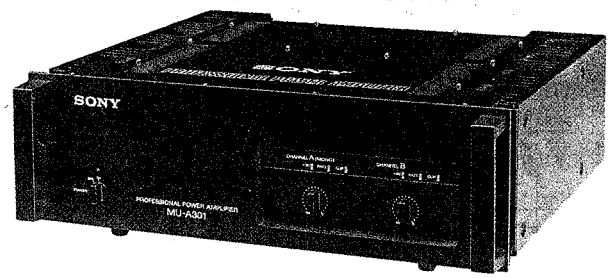
MU-A151/A301

SERVICE MANUAL

AEP Model
E Model
US Model
Canadian Model



MU-A151



MU-A301

SPECIFICATIONS

MU-A151

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 8 ohm loads, both channels driven, from 20–20,000 Hz; rated 100 watts per channel minimum RMS power with no more than 0.05% total harmonic distortion from 250 milliwatts to rated output.

OTHER SPECIFICATIONS

Rated output power	150 W + 150 W (both channels driven into 4 ohms, 20–20,000 Hz) 300 W (into 8 ohms, 20–20,000 Hz, monaural)
Power bandwidth	20–30,000 Hz (75 W, both channels driven into 4 ohms, 0.1% THD)
Damping factor	200 (at 1 kHz, 4 ohms, 25 W)
Residual noise	40 µV (IHF-A) 150 µV (WIDE)
Input impedance	10 k ohms
Input sensitivity	1.1 V rms (4 ohms, 150 W)
Indicators	POWER indicator CLIP (clipping) indicators (for channels 1 and 2)
Input connectors	INPUT 1/MONO: Phone jack × 2 Cannon XLR-3-31 type × 1 INPUT 2: Phone jack × 2 Cannon XLR-3-31 type × 1
Output connectors	OUTPUT 1 and OUTPUT 2: Screw-on terminal × 2
Power requirements	120 V AC, 50/60 Hz (UC model) 220 or 240 V AC, 50/60 Hz (AE model)
Power consumption	250 W (UC model) 310 W (AE model)
Dimensions	Approx. 440 × 100 × 402 mm (w/h/d) ($17\frac{3}{8} \times 4 \times 15\frac{7}{8}$ inches) including projecting parts and controls
Dimensions of front panel	Approx. 440 × 88 mm (w/h) ($17\frac{3}{8} \times 3\frac{1}{2}$ inches)
Weight	Approx. 13 kg (28 lb 10 oz)

Accessories supplied
Rack mount bracket (2U) 1 set
Fuse × 1

PROFESSIONAL POWER AMPLIFIER

SONY®

MU-A301

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 8 ohm loads, both channels driven, from 20–20,000 Hz; rated 200 watts per channel minimum RMS power with no more than 0.05% total harmonic distortion from 250 milliwatts to rated output.

OTHER SPECIFICATIONS

Rated output power
300 W + 300 W (both channels driven into 4 ohms, 20–20,000 Hz)
600 W (into 8 ohms, 20–20,000 Hz, monaural)
Power bandwidth 20–30,000 Hz (150 W, both channels driven into 4 ohms, 0.1% THD)
Damping factor 150 (at 1 kHz, 4 ohms, 25 W)
Residual noise 50 μV (IHF-A)
200 μV (WIDE)
Input impedance 10 k ohms
Input sensitivity 1.1 V rms (4 ohms, 300 W)
Indicators POWER indicator
−30 dB indicators (for channels 1 and 2)
RATE (rated level) indicators (for channels 1 and 2)
CLIP (clipping) indicators (for channels 1 and 2)
Input connectors INPUT 1/MONO:
Phone jack × 2
Cannon XLR-3-31 type × 1
INPUT 2:
Phone jack × 2
Cannon XLR-3-31 type × 1
Output connectors OUTPUT 1 and OUTPUT 2:
Screw-on terminal × 2
Power requirements
120 V AC, 50/60 Hz (UC model)
220 or 240 V AC, 50/60 Hz (AE model)

Power consumption
420 W (UC model)
520 W (AE model)
Dimensions Approx. 440 × 144 × 409 mm (w/h/d) ($17\frac{3}{8} \times 5\frac{3}{4} \times 16\frac{1}{8}$ inches) including projecting parts and controls
Dimensions of front panel
Approx. 440 × 132 mm (w/h) ($17\frac{3}{8} \times 5\frac{1}{4}$ inches)
Weight Approx. 16 kg (35 lb 4 oz)
Accessories supplied
Rack mount bracket (3U) 1 set
Fuse × 1

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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SECTION 1
ADJUSTMENTS

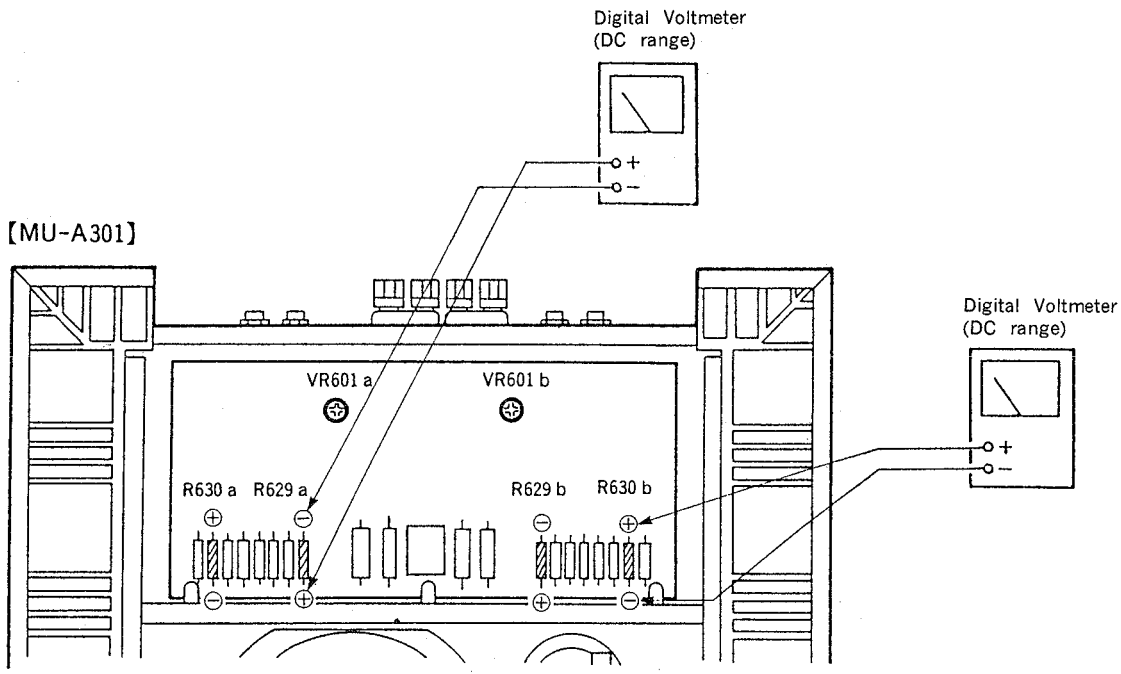
Turn or the power switch ON, Adjust of in course five mintes over.

【Idleing current Adjustment】

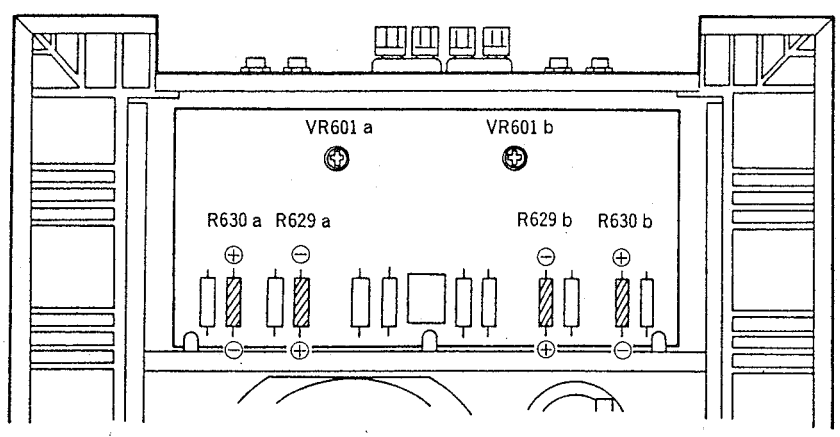
- Adjust with VR601a (or VR601b) of the final stair emiter reststor R629a, R630a (or R629b, R630b) so that a drop in voltage 3-5mV.

note: Refer to final stair emiter resistor arrangment of Figure.

【MU-A301】



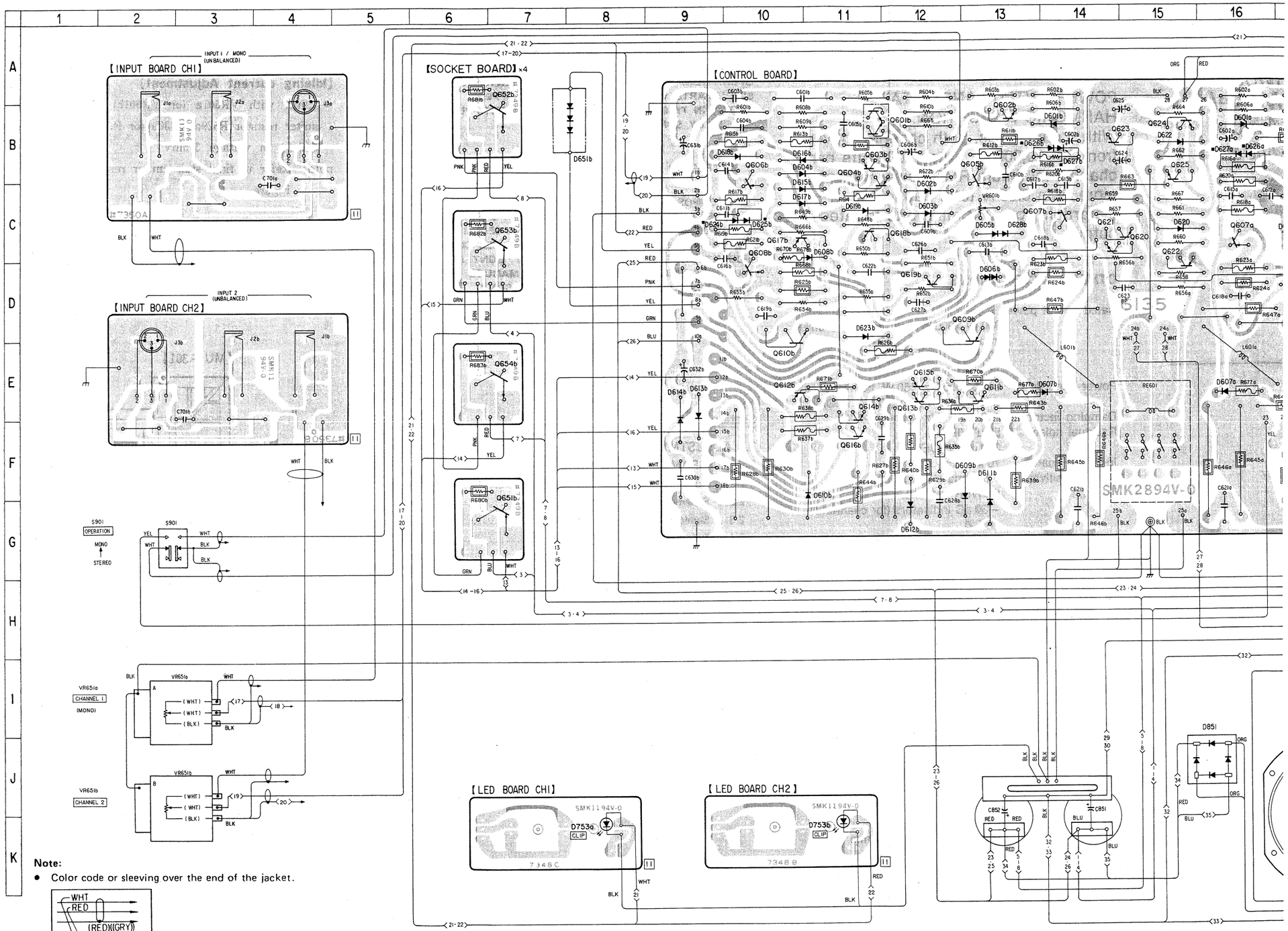
【MU-A151】



2-1. PRINTED WIRING BOARDS (MU-A151)

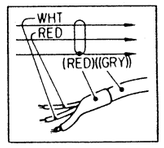
• SEMICONDUCTOR LOCATION

Ref.No.	Location	Ref. No.	Location
D601a	B-16	Q606a	C-20
D601b	B-14	Q606b	C-10
D602a	C-18	Q607a	C-16
D602b	C-12	Q607b	C-14
D603a	C-18	Q608a	D-20
D603b	C-12	Q608b	D-10
D604a	B-20	Q609a	E-18
D604b	C-11	Q609b	E-13
D605a	C-17	Q610a	E-20
D605b	C-13	Q610b	E-11
D606a	D-18	Q611a	E-17
D606b	D-13	Q611b	E-13
D607a	E-16	Q612a	E-20
D607b	E-14	Q612b	E-11
D608a	D-19	Q613a	E-18
D608b	D-11	Q613b	E-12
D609a	G-18	Q614a	F-19
D609b	G-13	Q614b	F-11
D610a	G-20	Q615a	E-18
D610b	G-11	Q615b	E-12
D611a	G-17	Q616a	F-19
D611b	G-13	Q616b	F-11
D612a	G-18	Q617a	C-19
D612b	G-12	Q617b	C-11
D613a	F-21	Q618a	C-19
D613b	F-9	Q618b	C-12
D614a	F-21	Q619a	D-18
D614b	F-9	Q619b	D-12
D615a	D-20	Q620	D-15
D615b	C-11	Q621	C-15
D616a	B-20	Q622	D-16
D616b	B-11	Q623	B-15
D617a	D-20	Q624	B-16
D617b	C-11	Q625	C-16
D618a	B-20	Q651a	G-24
D618b	B-10	Q651b	G-7
D619a	C-19	Q652a	B-24
D619b	C-12	Q652b	B-7
D620	C-16	Q653a	C-22
D622	B-16	Q653b	C-7
D623a	E-19	Q654a	E-24
D623b	E-12	Q654b	E-7
D624a	D-20		
D624b	C-10		
D625a	D-20		
D625b	C-10		
D626a	B-16		
D626b	E-14		
D627a	B-16		
D627b	E-14		
D628a	C-17		
D628b	C-13		
D651a	B-23		
D651b	B-8		
D701	I-18		
D753a	K-8		
D753b	K-11		
D754	L-24		
D851	J-16		
Q601a	B-19		
Q601b	B-12		
Q602a	B-17		
Q602b	B-13		
Q603a	B-19		
Q603b	B-12		
Q604a	B-19		
Q604b	C-12		
Q605a	C-17		
Q605b	C-13		

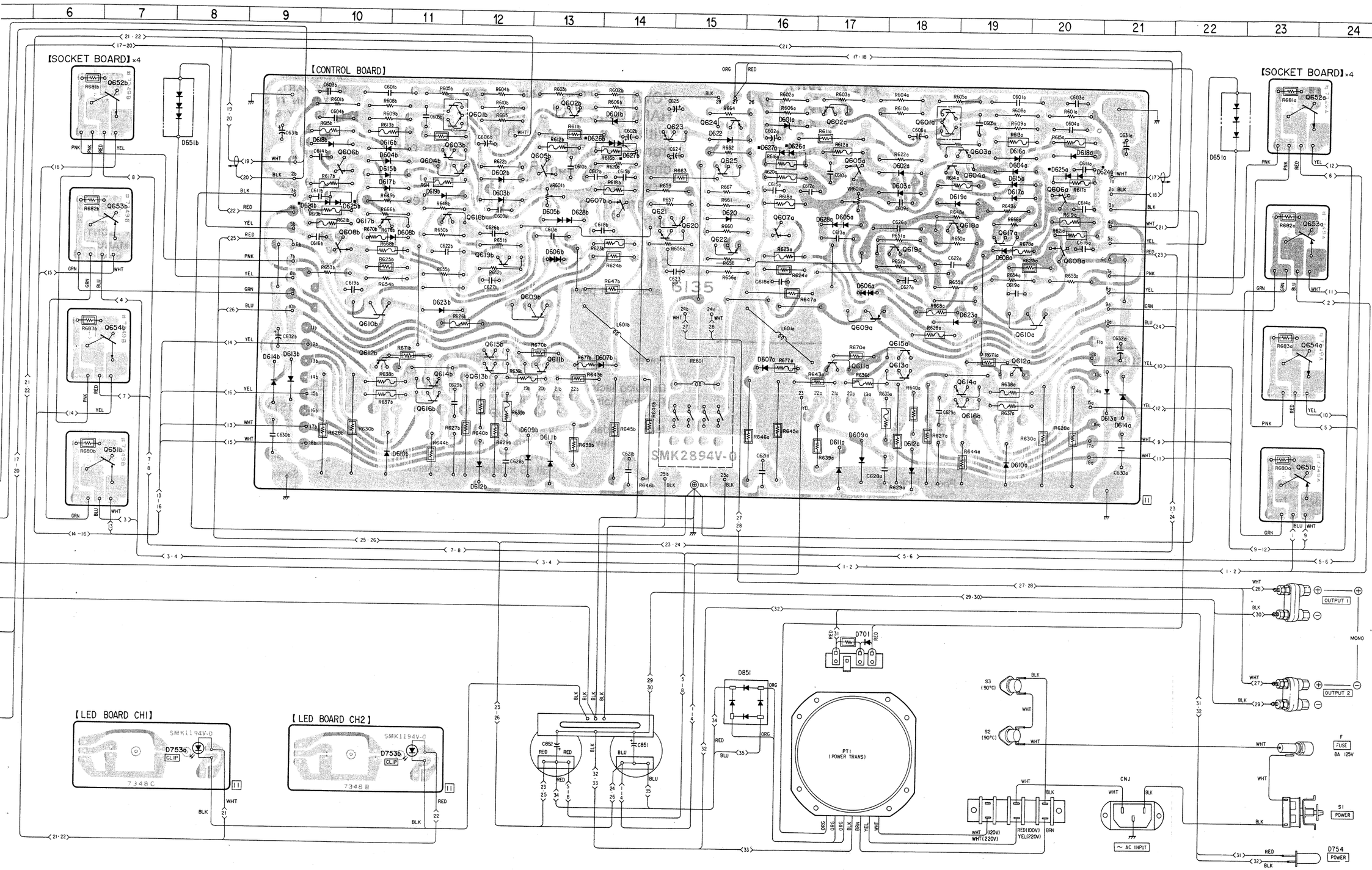


Note:

- Color code or sleeving over the end of the jacket.



- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.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24
【SOCKET BOARD】×4
【CONTROL BOARD】
【SOCKET BOARD】×4
【LED BOARD CH1】
【LED BOARD CH2】
SMK1194V-0
SMK2894V-0
D753a
D753b
CLIP
D701
D851
PT1
(POWER TRANS)
S3
(90°C)
S2
(90°C)
CNJ
~ AC INPUT
OUTPUT 1
OUTPUT 2
MONO
F
FUSE
8A 125V
S1
POWER
D754
POWER
WHT(120V)
WHT(220V)
RED(100V)
YEL(220V)

2-2. SCHEMATIC DIAGRAM (MU-A151)

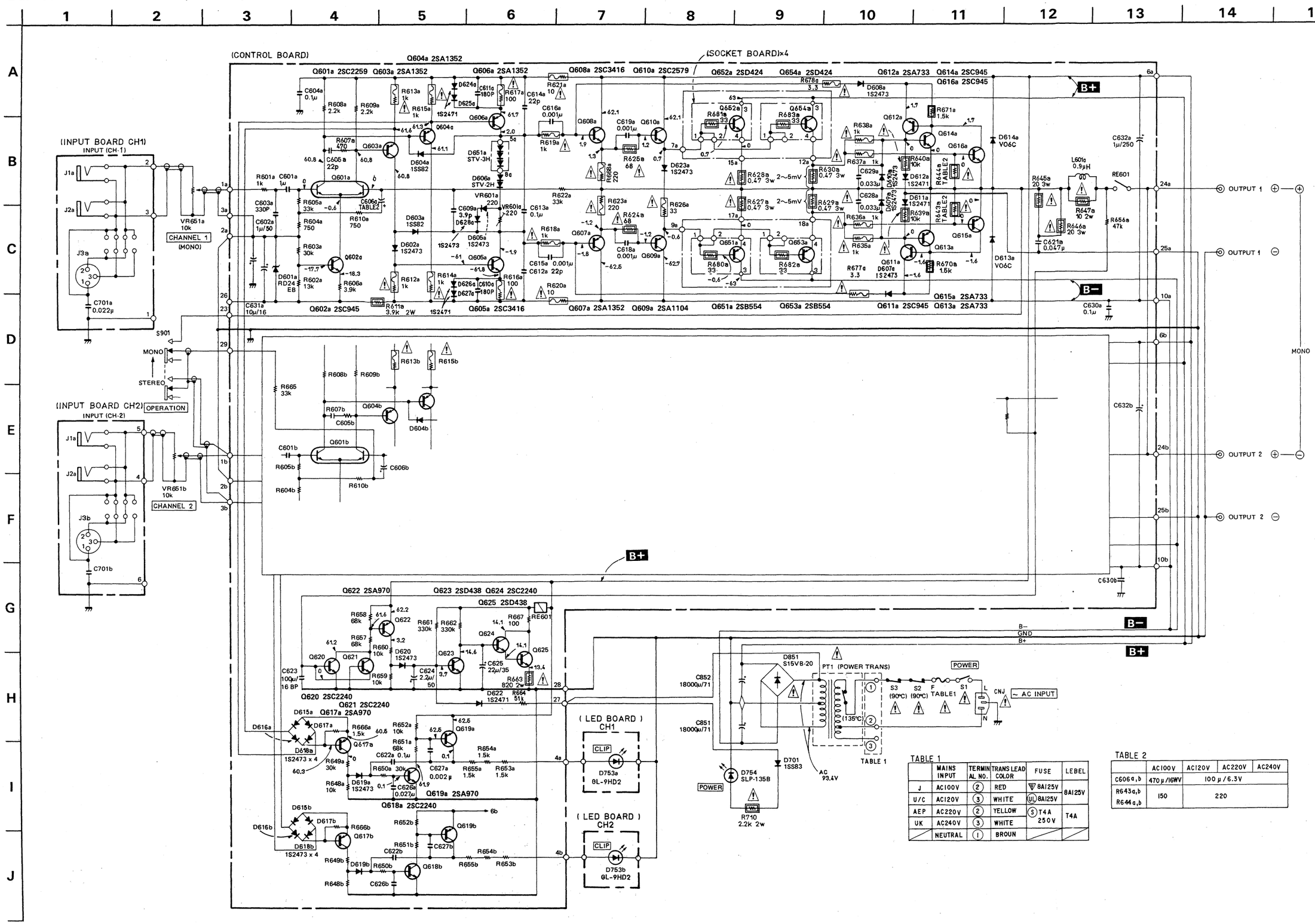


TABLE 1

	MAINS INPUT	TERMINAL NO.	TRANS LEAD COLOR	FUSE	LEBEL
J	AC100V	2	RED	8A/125V	8A/125V
U/C	AC120V	3	WHITE	8A/125V	
AEP	AC220V	2	YELLOW	T4A 250V	T4A
UK	AC240V	3	WHITE		
	NEUTRAL	1	BROWN		

TABLE 2

	AC100V	AC120V	AC220V	AC240V
C606a,b	470μ/16WV	100μ/6.3V		
R643a,b	150	220		
R644a,b				

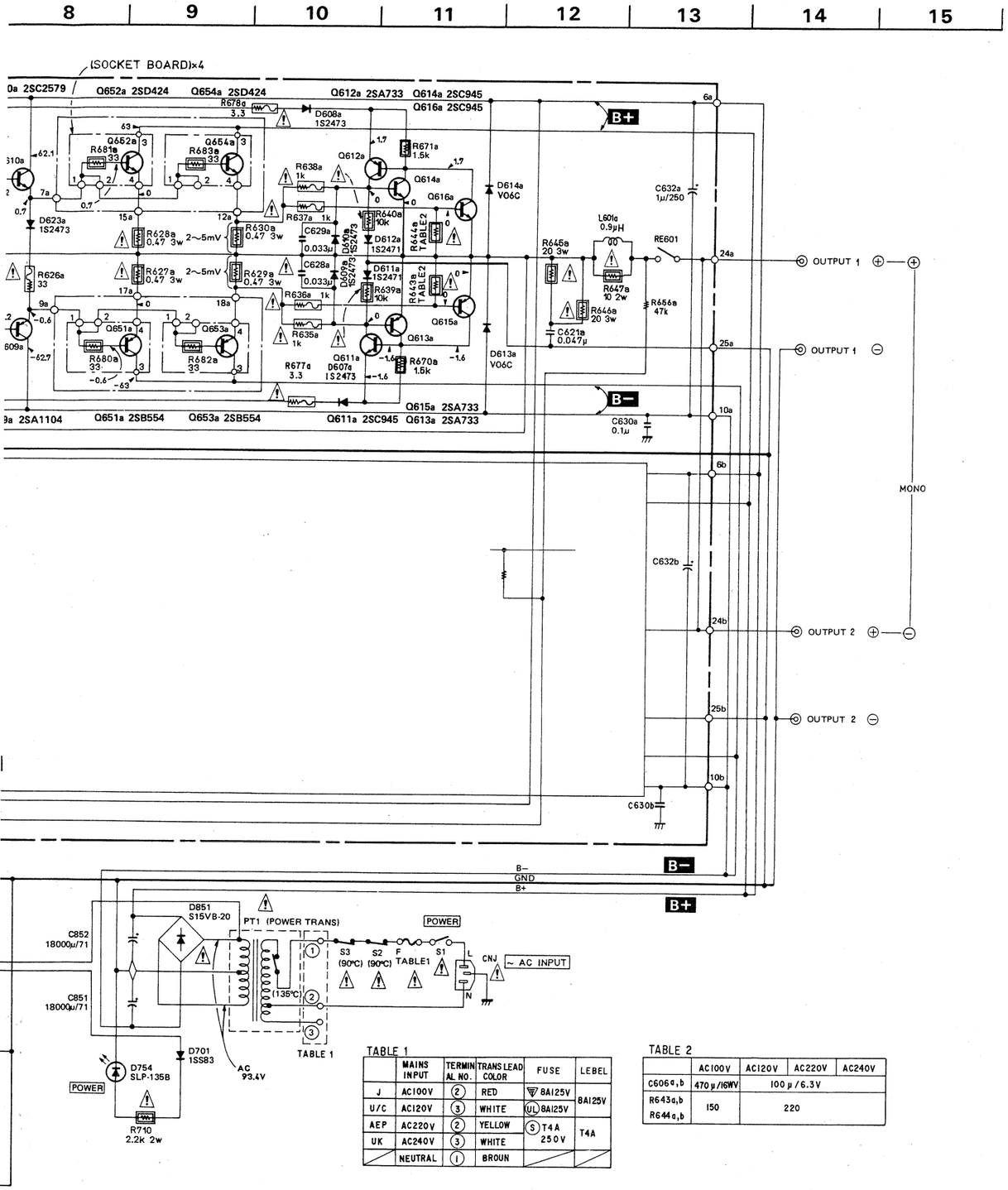


TABLE 1

	MAINS INPUT	TERMINAL NO.	TRANS LEAD COLOR	FUSE	LEBEL
J	AC100V	②	RED	▽ 8AI25V	8AI25V
U/C	AC120V	③	WHITE	(UL) 8AI25V	
AEP	AC220V	②	YELLOW	(S) T4A 250V	T4A
UK	AC240V	③	WHITE		
	NEUTRAL	①	BROWN		

TABLE 2

	AC100V	AC120V	AC220V	AC240V
C606a,b	470μ/16WV	100μ/6.3V		
R643a,b R644a,b	150	220		

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⚠: fusible resistor.

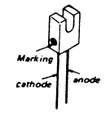
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

2-3. SEMICONDUCTOR LEAD LAYOUTS

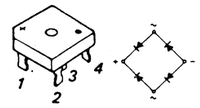
μPC4558C (MU-A301)

2SD774

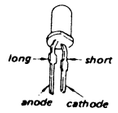
STV-3H



S25VB40

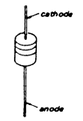


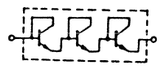
TLR124



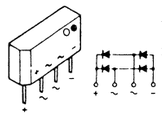
2SA733-Q
2SA970-BL
2SC945-L
2SC2240-BL

RD6.2ES-B2 (MU-A301)
1SS119

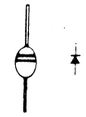




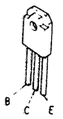
SIVB40 (MU-A301)



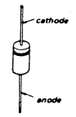
V09G



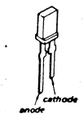
2SA1186
2SC2837



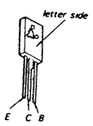
RD24E-B2
1SS83
1S1585



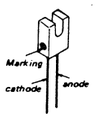
GL-9NG2 (MU-A301)



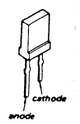
2SA1352
2SC3416



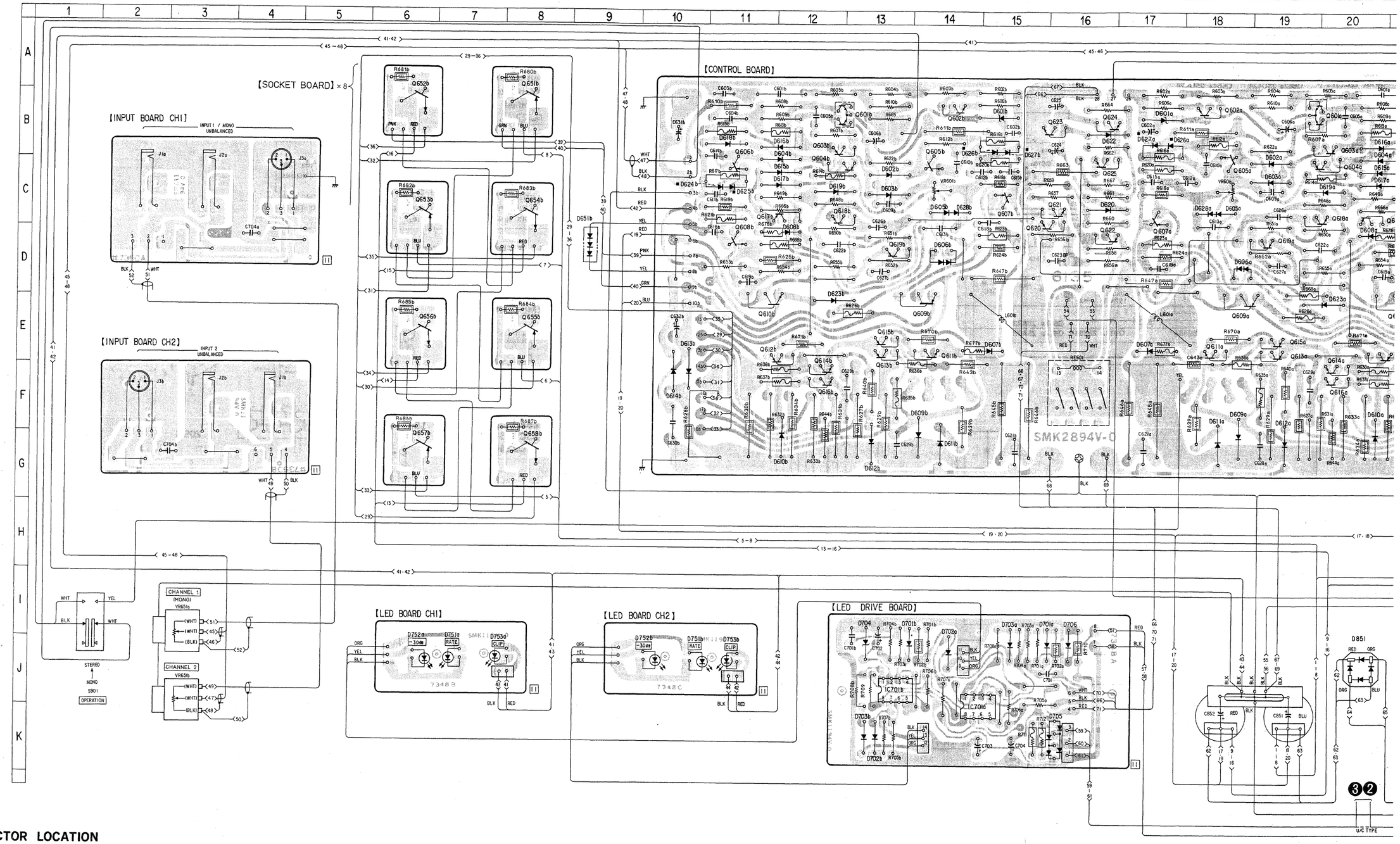
STV-2H



SLP162B

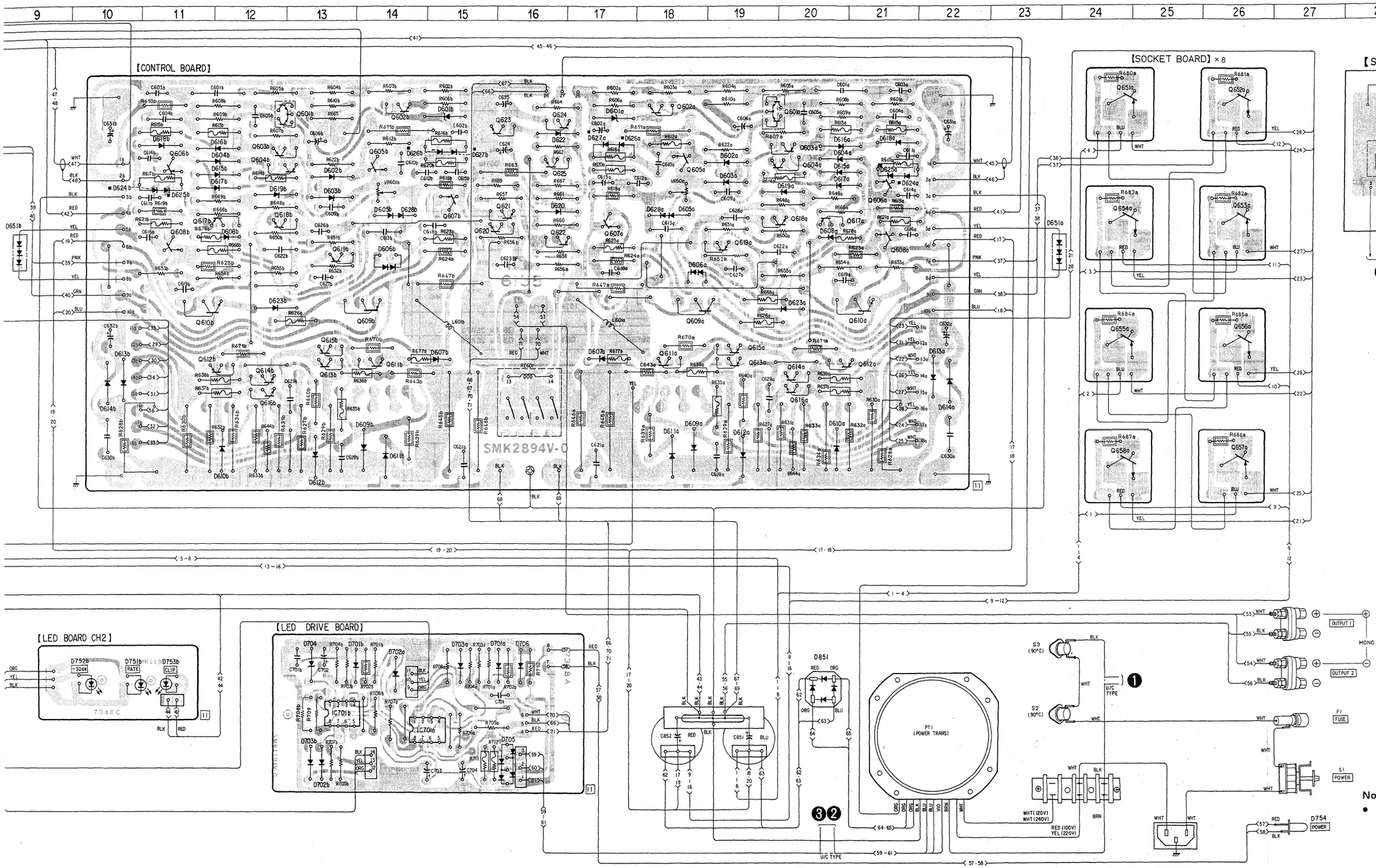


2-4. PRINTED WIRING BOARDS (MU-A301)



• SEMICONDUCTOR LOCATION

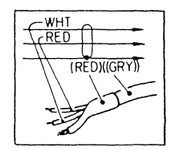
Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location
D601a	B-17	D605a	C-18	D609a	F-18	D613a	F-22	D617a	C-20	D623a	E-20	D627a	B-17	D702a	J-14	D751b	J-10	IC701a	J-15	Q603b	B-12	Q607b	C-15	Q611b	E-14
D601b	B-15	D605b	C-14	D609b	F-14	D613b	F-10	D617b	C-12	D623b	E-12	D627b	B-15	D702b	K-13	D752a	J-6	IC701b	J-13	Q604a	C-20	Q608a	D-21	Q612a	E-20
D602a	B-19	D606a	F-18	D610a	F-20	D614a	F-22	D618a	B-21	D624a	C-21	D628a	C-18	D703a	J-15	D752b	J-10			Q604b	C-13	Q608b	D-11	Q612b	E-20
D602b	C-13	D606b	D-14	D610b	F-12	D614b	F-10	D618b	B-11	D624b	C-11	D628b	C-14	D703b	K-13	D753a	J-8	Q601a	B-20	Q605a	B-20	Q609a	D-18	Q613a	E-19
D603a	C-19	D607a	E-17	D611a	G-18	D615a	C-20	D619a	C-20	D625a	C-21	D651a	D-23	D704	J-13	D753b	J-11	Q601b	B-13	Q605b	C-14	Q609b	E-14	Q613b	E-13
D603b	C-13	D607b	E-15	D611b	G-14	D615b	C-12	D619b	C-12	D625b	C-11	D651b	D-9	D705	K-16	D754	K-27	Q602a	B-18	Q606a	C-21	Q610a	D-21	Q614a	E-20
D604a	B-20	D608a	D-20	D612a	G-19	D616a	B-20	D620	C-16	D626a	B-7	D701a	J-16	D706	J-16	D851	J-20	Q602b	B-14	Q606b	C-11	Q610b	E-11	Q614b	F-12
D604b	B-12	D608b	D-11	D612b	G-13	D616b	B-12	D622	B-16	D626b	B-15	D701b	J-14	D751a	J-7			Q603a	C-20	Q607a	C-17	Q611a	E-18	Q615a	E-19



Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location	Ref.No.	Location
D627a	B-17	D702a	J-14	D751b	J-10	IC701a	J-15	Q603b	B-12	Q607b	C-15	Q611b	E-14	Q615b	E-13	Q619b	D-13	Q651b	B-8	Q655b	E-8
D627b	B-15	D702b	K-13	D752a	J-6	IC701b	J-13	Q604a	C-20	Q608a	D-21	Q612a	E-20	Q616a	F-20	Q620	C-16	Q652a	B-26	Q656a	E-26
D628a	C-18	D703a	J-15	D752b	J-10			Q604b	C-13	Q608b	D-11	Q612b	E-20	Q616b	F-12	Q621	C-16	Q652b	B-6	Q656b	E-6
D628b	C-14	D703b	K-13	D753a	J-8	Q601a	B-20	Q605a	B-20	Q609a	D-18	Q613a	E-19	Q617a	C-20	Q622	D-16	Q653a	E-26	Q657a	G-26
D651a	D-23	D704	J-13	D753b	J-11	Q601b	B-13	Q605b	C-14	Q609b	E-14	Q613b	E-13	Q617b	C-12	Q623	B-16	Q653b	C-6	Q657b	G-6
D651b	D-9	D705	K-16	D754	K-27	Q602a	B-18	Q606a	C-21	Q610a	D-21	Q614a	E-20	Q618a	C-20	Q624	B-16	Q654a	C-24	Q658a	G-24
D701a	J-16	D706	J-16	D851	J-20	Q602b	B-14	Q606b	C-11	Q610b	E-11	Q614b	F-12	Q618b	C-12	Q625	B-16	Q654b	C-8	Q658b	G-8
D701b	J-14	D751a	J-7			Q603a	C-20	Q607a	C-17	Q611a	E-18	Q615a	E-19	Q619a	D-19	Q651a	B-24	Q655a	E-24		

Note:

- Color code or sleeving over the end of the jacket.



- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.

2-5. SCHEMATIC DIAGRAM (MU-A301)

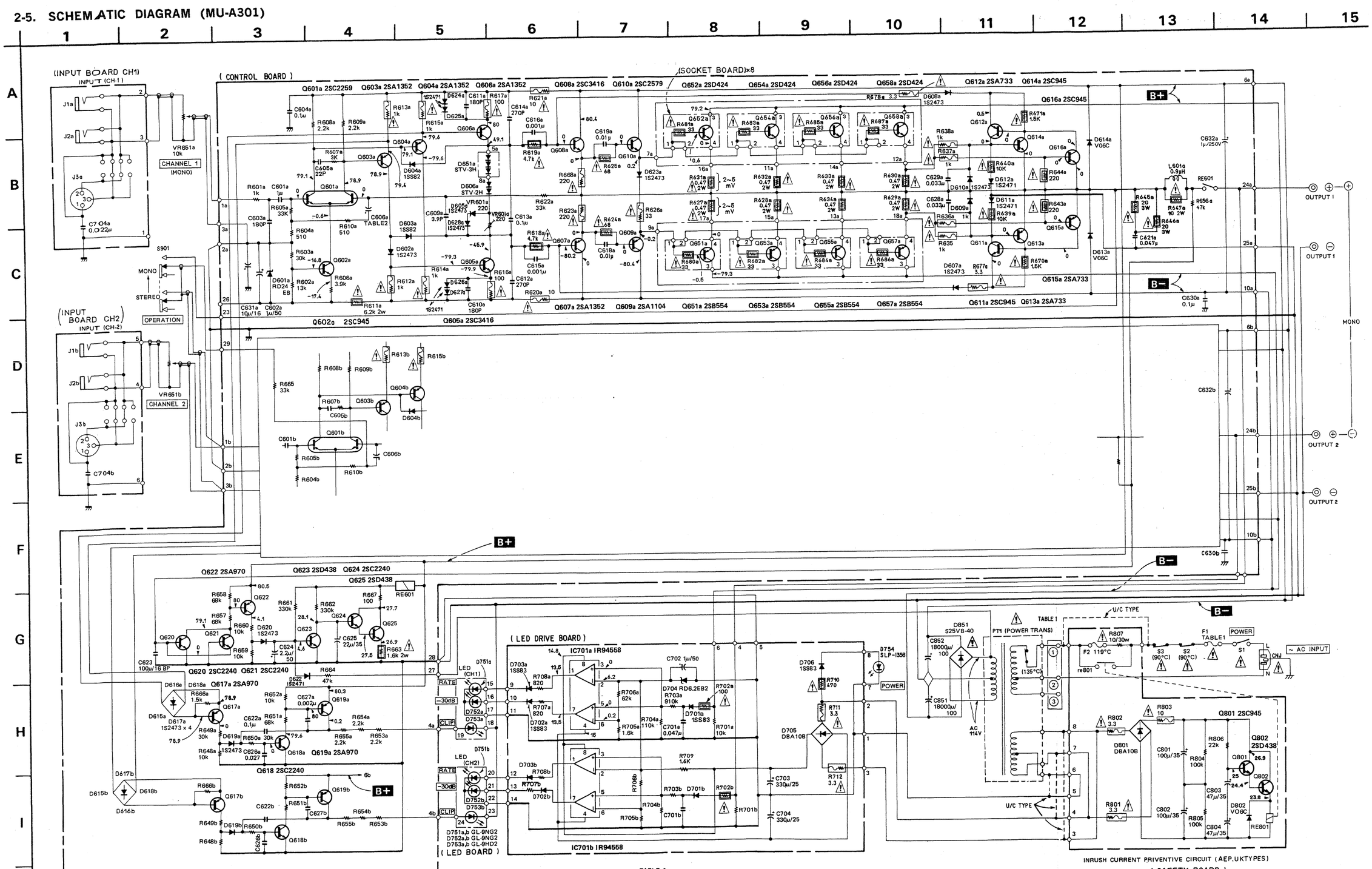


TABLE 1

	MAINS INPUT	TERMINAL NO.	TRANSLEAD COLOR	FUSE	LEBEL
J	AC100V	②	RED	Ⓥ 15AI125V	15AI125V
U/C	AC120V	③	WHITE	Ⓤ 15AI125V	
AEP	AC220V	②	YELLOW	Ⓢ T6.3A 250V	T6.3A
UK	AC240V	③	WHITE		
	NEUTRAL	①	BROWN		

TABLE 2

	AC100V	AC120V	AC220V	AC240V
C606a,b	470μ/16WV	100μ/6.3V		

Note:

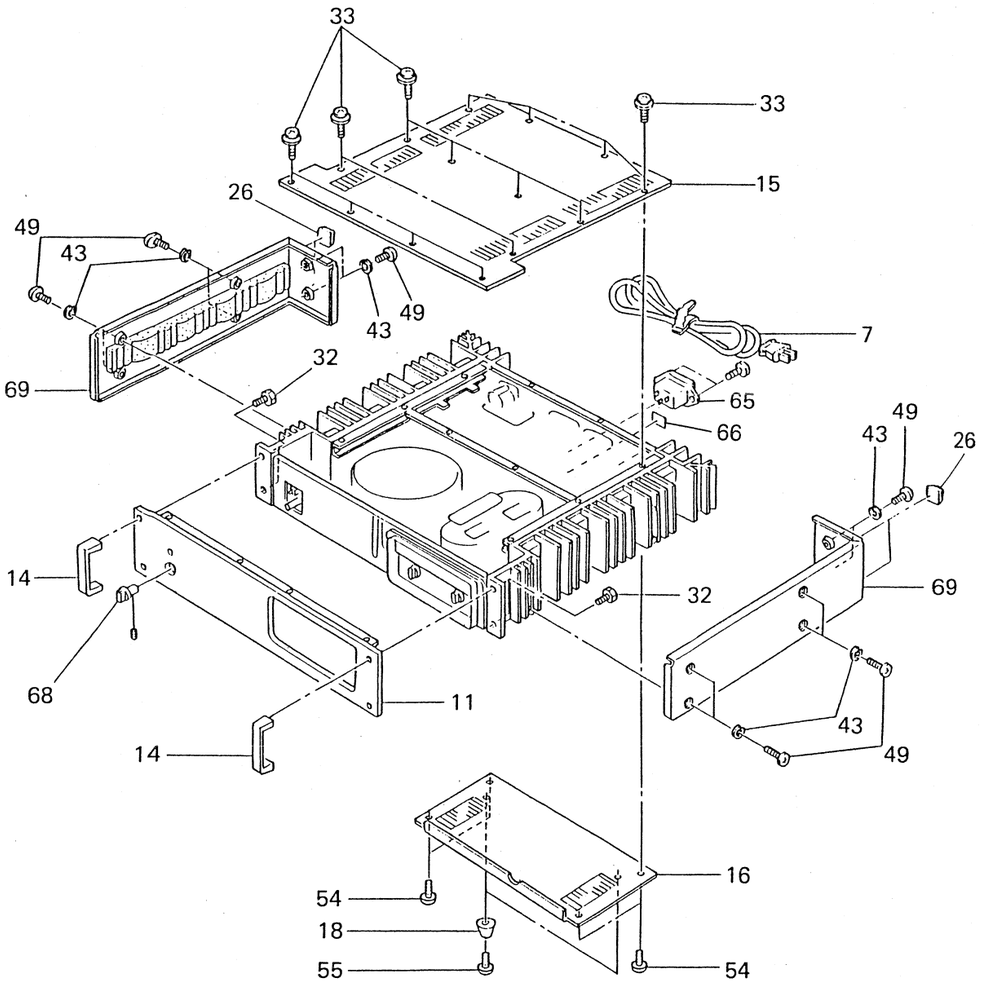
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⏦: fusible resistor.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

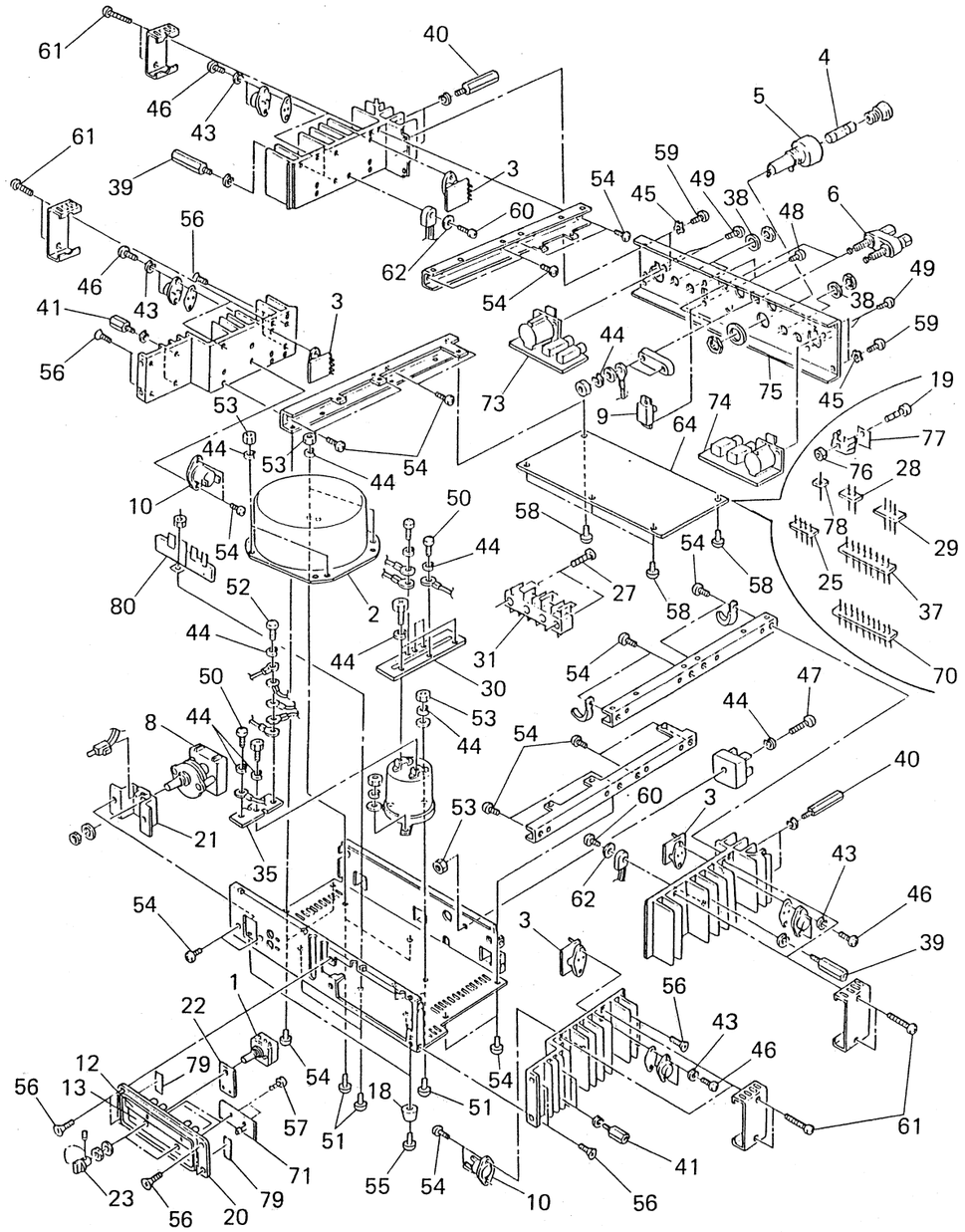
Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 3
EXPLODED VIEWS AND PARTS LIST

MU-A151 (1)



MU-A151 (2)



NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) ...KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

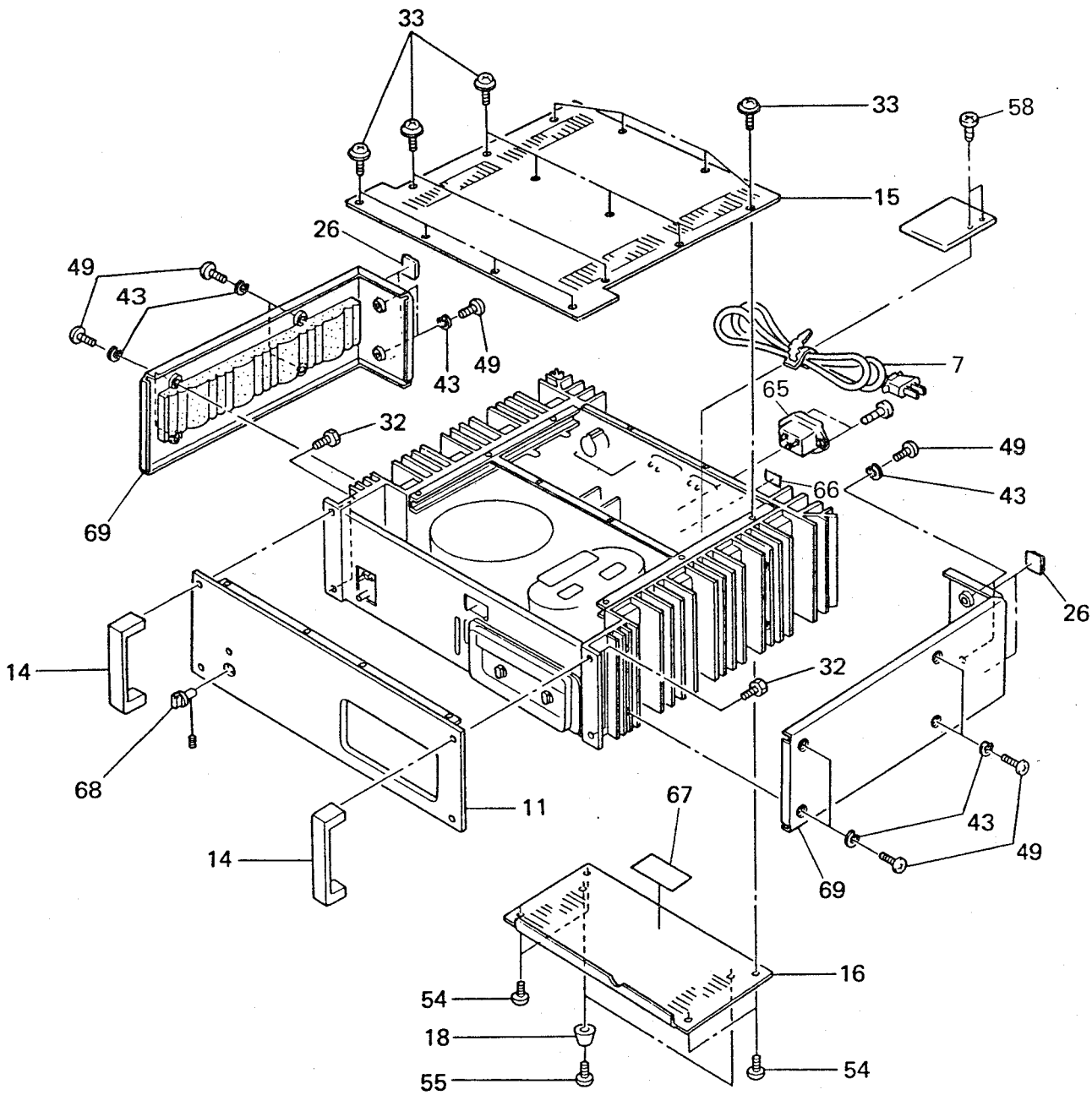
Ref.No.	Part No.	Description
1	1-237-082-11	RES, VAR, CARBON 10K
2	⚠1-449-112-11	TRANSFORMER, POWER
3	*1-617-376-11	PC BOARD, TRANSLATION
3	*1-617-377-11	PC BOARD, TRANSLATION
3	1-526-853-11	SOCKET, TR
4	⚠1-532-350-00	(AEP/E).....FUSE, TIME-LAG (4A)
	⚠1-532-510-11	(US/Canadian)..FUSE, TIME-LAG (8A)
5	⚠1-533-210-11	(AEP/E).....HOLDER, FUSE
	⚠1-532-209-11	(US/Canadian)..HOLDER, FUSE
6	1-536-961-11	TERMINAL (5WAY)
7	⚠1-559-656-11	(AEP/E).....CORD, POWER
8	⚠1-571-355-11	SWITCH, ROTARY (AC POWER)
9	1-570-466-11	SWITCH, SLIDE
10	1-570-467-11	SWITCH, THERMAL
11	2-335-101-01	PANEL, FRONT
12	*2-335-102-01	PLATE (B), TRIM
13	*2-335-079-01	PLATE (A), TRIM
14	2-335-103-01	HANDLE
15	*2-335-081-01	PALTE, TOP
16	*2-335-082-01	PLATE, BOTTOM
18	2-335-084-01	FOOT
19	7-682-549-04	SCREW +B 3X10
20	*2-335-086-01	PANEL, SUB
21	*2-335-087-01	BRACKET, SW
22	2-335-088-01	WASHER, VOLUME
23	2-335-089-01	KNOB
25	*1-535-117-00	TERMINAL 4P
26	*2-335-855-01	CUSHION
27	7-682-552-04	SCREW +B 3X16
28	*1-535-115-00	TERMINAL 2P
29	*1-535-116-00	TERMINAL 3P
30	*2-335-858-01	BRACKET (LARGE), CONDENSER
31	*1-537-125-11	TERMINAL BOARD
32	2-335-112-01	SCREW (B) (M5X20), HEXAGON
33	7-685-645-79	SCREW +P 3X6 TYPE2 NON-SLIT
35	*2-335-859-01	BRACKET (SMALL), CONDENSER
37	*1-535-121-00	TERMINAL 8P
38	2-335-119-01	SCREW (PW) (DIA.12)
39	2-335-120-01	STUD (HEXM3)
40	2-335-120-11	STUD (HEXM3)
41	2-335-120-21	STUD (HEXM3)
43	7-623-208-22	SW 3,TYPE 2
44	7-623-210-22	SW 4,TYPE 2
45	7-623-422-07	LW 3, TYPE B
46	7-682-552-04	SCREW +P 3X16
47	7-682-566-09	SCREW +P 4X20
48	7-682-547-01	SCREW +B 3X6
49	7-682-548-09	SCREW +B 3X8
50	7-682-562-09	SCREW +B 4X10
51	7-682-561-09	SCREW +B 4X8
52	7-682-563-09	SCREW +B 4X12
53	7-684-024-04	N 4, TYPE 2

Ref.No.	Part No.	Description
54	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S
55	7-685-161-29	SCREW +P 4X12 TYPE2 SLIT
56	7-685-247-19	SCREW +KTP 3X10 TYPE2 SLIT
57	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S
58	7-682-549-04	SCREW +P 3X10
59	7-685-546-14	SCREW +BTP 3X8 TYPE2 N-S
60	7-685-647-79	SCREW +BTP 3X10 TYPE2 N-S
61	7-685-152-19	SCREW +BTP 3X25 TYPE2 N-S
62	7-688-003-11	W 3, MIDDLE
64	*A-4588-219-A	MOUNTED PCB, CONTROL
65	⚠1-560-222-21	INLET 3P
66	*3-701-947-18	LABEL (T4A), FUSE
68	2-335-857-01	KNOB
69	*X-2335-020-1	COVER ASSY
70	*1-535-123-00	TERMINAL 10P
71	*1-617-374-11	PC BOARD, LED (LEFT)
71	*1-617-375-11	PC BOARD, LED (RIGHT)
73	*1-617-378-11	PC BOARD, INPUT (LEFT)
74	*1-617-379-11	PC BOARD, INPUT (RIGHT)
75	*2-335-128-03	PANEL, REAR
76	7-684-024-04	N4, TYPE 2
77	*2-335-143-01	FILM, INSULATING
78	*1-535-114-00	TERMINAL 1P
79	*9-911-844-XX	CUSHION
80	1-536-401-XX	TERMINAL BOARD (2L1)

ACCESSORY & PACKING MATERIAL
****

	⚠1-559-656-11	CORD, POWER
	*2-335-109-02	CORRUGATED FIBERBOARD, INNER
	*2-335-123-02	CUSHION
	*2-335-124-02	INDIVIDUAL CARTON
	*2-335-140-01	BOARD, TOP

MU-A301 (1)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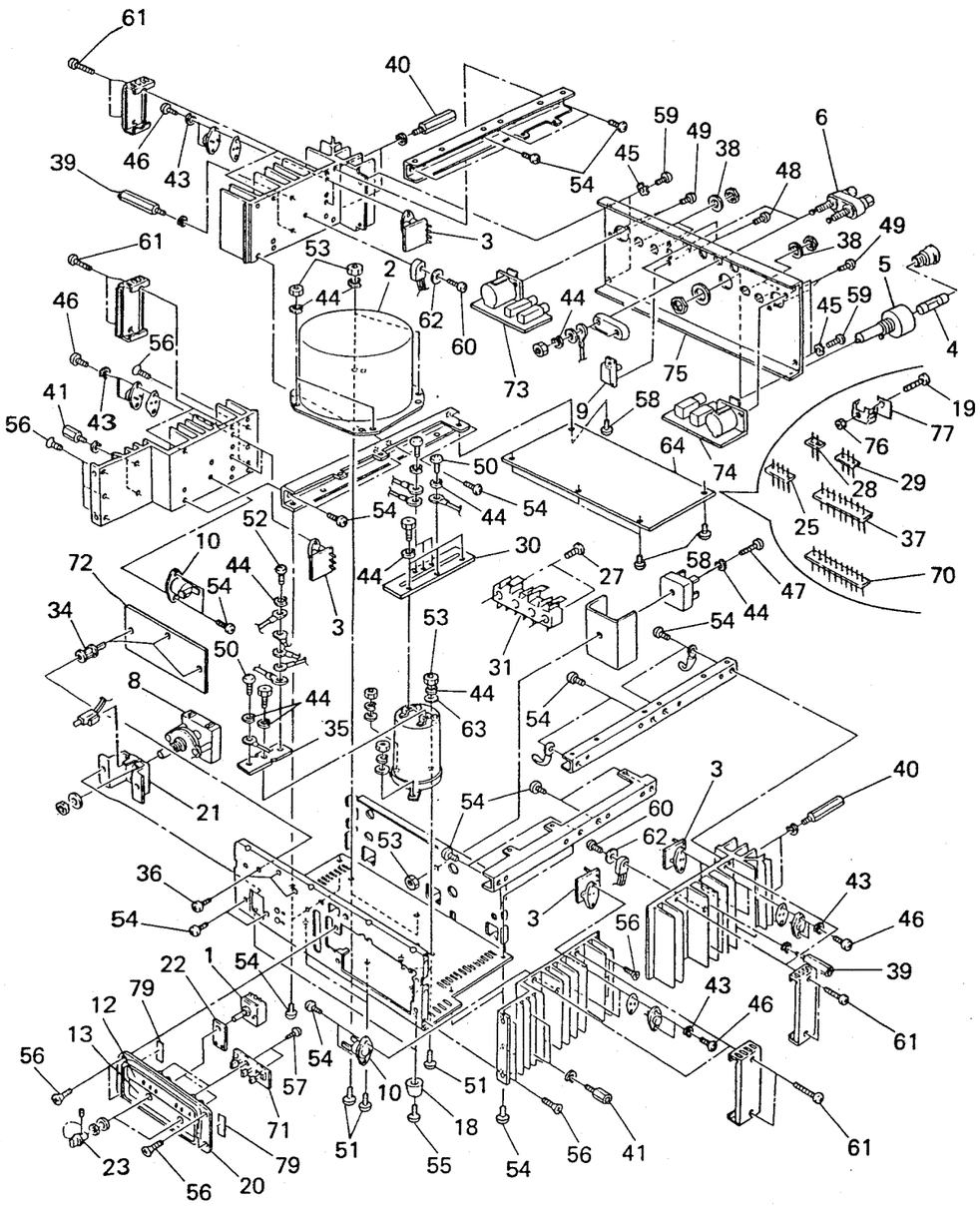
MU-A301 (2)



NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
1	1-237-082-11	RES, VAR, CARBON 10K
2	⚠1-449-110-11	TRANSFORMER, POWER
3	*1-617-376-11	PC BOARD, TRANSLATION
3	*1-617-377-11	PC BOARD, TRANSLATION
3	1-526-853-11	SOCKET, TR
4	⚠1-532-325-00	(AEP/E).....FUSE, TIME-LAG (6.3A)
	⚠	(US/Canadian)..FUSE, TIME-LAG (15A)
5	⚠1-533-210-00	(AEP/E).....HOLDER, FUSE
	1-533-209-00	(US/Canadian)..HOLDER, FUSE
6	1-536-961-11	TERMINAL (5WAY)
7	⚠1-559-656-11	(AEP/E).....CORD, POWER
8	⚠1-571-355-11	SWITCH, ROTARY (AC POWER)
9	1-570-466-11	SWITCH, SLIDE
10	⚠1-570-467-11	SWITCH, THERMAL
11	2-335-743-01	PANEL, FRONT
12	*2-335-078-01	PLATE (C), TRIM
13	*2-335-079-01	PLATE (A), TRIM
14	2-335-080-01	HANDLE
15	*2-335-081-01	PALTE, TOP
16	*2-335-082-01	PLATE, BOTTOM
18	2-335-084-01	FOOT
19	7-682-549-04	SCREW +B 3X10
20	*2-335-086-01	PANEL, SUB
21	*2-335-087-01	BRACKET, SW
22	2-335-088-01	WASHER, VOLUME
23	2-335-089-01	KNOB
25	*1-535-117-00	TERMINAL 4P
26	*2-335-855-02	CUSHION
27	7-682-552-04	SCREW +B 3X16
28	*1-535-115-00	TERMINAL 2P
29	*1-535-116-00	TERMINAL 3P
30	*2-335-858-01	BRACKET (LARGE), CONDENSER
31	*1-537-125-11	TERMINAL BOARD
32	2-335-112-01	SCREW (B) (M5X20), HEXAGON
33	7-685-645-79	SCREW +P 3X6 TYPE2 NON-SLIT
34	*2-335-114-01	SPACER (TCBS-6N)
35	*2-335-859-01	BRACKET (SMALL), CONDENSER
36	2-335-117-01	SCREW (M3.5X6), TAPPING
37	*1-535-121-00	TERMINAL 8P
38	2-335-119-01	SCREW (PW) (DIA.12)
39	2-335-120-01	STUD (HEXM3)
40	2-335-120-11	STUD (HEXM3)
41	2-335-120-21	STUD (HEXM3)
43	7-623-208-22	SW 3,TYPE 2
44	7-623-210-22	SW 4,TYPE 2
45	7-623-422-07	LW 3, TYPE B
46	7-682-552-04	SCREW +P 3X16
47	7-682-566-09	SCREW +P 4X20
48	7-682-547-01	SCREW +B 3X6
49	7-682-548-09	SCREW +B 3X8
50	7-682-562-09	SCREW +B 4X10
51	7-682-561-09	SCREW +B 4X8
52	7-682-563-09	SCREW +4X12
53	7-684-024-04	N 4, TYPE 2
54	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S
55	7-685-161-29	SCREW +P 4X12 TYPE2 SLIT
56	7-685-247-19	SCREW +KTP 3X10 TYPE2 SLIT
57	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S
58	7-682-549-04	SCREW +P 3X10
59	7-685-546-14	SCREW +BTP 3X8 TYPE2 N-S
60	7-685-647-79	SCREW +BTP 3X10 TYPE2 N-S
61	7-685-152-19	SCREW +BTP 3X25 TYPE2 N-S
62	7-688-003-11	W 3, MIDDLE
63	7-624-423-07	LW 4,TYPE B
64	*A-4588-211-A	MOUNTED PCB, CONTROL
65	⚠1-509-547-00	3P INLET
66	*3-701-947-19	LABEL (T6.3A), FUSE
67	*2-335-856-01	SHEET, INSULATING
68	2-335-857-01	KNOB
69	*X-2335-016-1	COVER ASSY
70	*1-535-123-00	TERMINAL 10P
71	*1-617-374-11	PC BOARD, LED (RIGHT)
71	*1-617-375-11	PC BOARD, LED (LEFT)
72	*1-617-373-11	PC BOARD, LED DRIVER
73	*1-617-378-11	PC BOARD, INPUT (LEFT)
74	*1-617-379-11	PC BOARD, INPUT (RIGHT)
75	*2-335-090-01	PANEL, REAR
76	7-684-023-04	N 3, TYPE 2
77	*2-335-143-01	FILM, INSULATING
79	*9-911-844-XX	CUSHION

ACCESSORY & PACKING MATERIAL
****

⚠1-559-656-11	CORD, POWER
*2-335-097-01	CUSHION
*2-335-098-01	CORRUGATED FIBERBOARD, INNER
*2-335-099-01	INDIVIDUAL CARTON
*2-335-140-01	BOARD, TOP

SECTION 4
ELECTRICAL PAPTS LIST

MU-A151 ELECTRICAL PARTS LIST

NOTE:

- Due to standardiz ation, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
71	*1-617-374-11	PC BOARD, LED (LEFT)
D753A	8-719-915-45	DIODE SLP162B
71	*1-617-375-11	PC BOARD, LED (RIGHT)
D753B	8-719-915-45	DIODE SLP162B
73	*1-617-378-11	PC BOARD, INPUT (LEFT)
28	*1-535-115-00	TERMINAL 2P
C701A	1-161-055-00	CERAMIC 0.022MF 5% 50V
J1A	1-563-081-11	JACK, LARGE TYPE
J2A	1-563-081-11	JACK, LARGE TYPE
J3A	*1-563-080-11	CONNECTOR (RECEPTACLE) 3P
74	*1-617-379-11	PC BOARD, INPUT (RIGHT)
C701B	1-161-055-00	CERAMIC 0.022MF 5% 50V
J1B	1-563-081-11	JACK, LARGE TYPE
J2B	1-563-081-11	JACK, LARGE TYPE
J3B	*1-563-080-11	CONNECTOR (RECEPTACLE) 3P
		SOCKET (LEFT) ASSY, BOARD
3	*1-617-376-11	PC BOARD, TRANSLATION
3	*1-617-377-11	PC BOARD, TRANSLATION
3	1-526-853-11	SOCKET, TR
25	*1-535-117-00	TERMINAL 4P
R680A ⚠	1-247-694-11	CARBON 33 5% 1/4W
R681A ⚠	1-247-694-11	CARBON 33 5% 1/4W
R682A ⚠	1-247-694-11	CARBON 33 5% 1/4W
R683A ⚠	1-247-694-11	CARBON 33 5% 1/4W
		SOCKET (RIGHT) ASSY, BOARD
R680B ⚠	1-247-694-11	CARBON 33 5% 1/4W
R681B ⚠	1-247-694-11	CARBON 33 5% 1/4W
R682B ⚠	1-247-694-11	CARBON 33 5% 1/4W
R683B ⚠	1-247-694-11	CARBON 33 5% 1/4W
64	*A-4588-219-A	MOUNTED PCB, CONTROL
29	*1-535-116-00	TERMINAL 3P
37	*1-535-121-00	TERMINAL 8P
70	*1-535-123-00	TERMINAL 10P
78	*1-535-114-00	TERMINAL 1P
C623	1-126-235-11	ELECT 100MF 20% 16V
C624	1-123-381-00	ELECT 2.2MF 20% 50V
C625	1-123-357-00	ELECT 22MF 20% 35V

Ref.No.	Part No.	Description
C601A	1-130-789-00	MYLAR 1MF 10% 100V
C601B	1-130-789-00	MYLAR 1MF 10% 100V
C602A	1-123-380-00	ELECT 1MF 20% 50V
C602B	1-123-380-00	ELECT 1MF 20% 50V
C603A	1-109-684-00	MICA 300PF 10% 500V
C603B	1-109-684-00	MICA 300PF 10% 500V
C604A	1-136-165-00	FILM 0.1MF 5% 50V
C604B	1-136-165-00	FILM 0.1MF 5% 50V
C605A	1-107-210-00	MICA 22PF 10% 500V
C605B	1-107-210-00	MICA 22PF 10% 500V
C606A	1-126-101-11	ELECT 100MF 20% 6.3V
C606B	1-126-101-11	ELECT 100MF 20% 6.3V
C609A	1-107-045-00	MICA 3.9PF 0.5PF 500V
C609B	1-107-045-00	MICA 3.9PF 0.5PF 500V
C610A	1-109-619-00	MICA 180PF 10% 500V
C610B	1-109-619-00	MICA 180PF 10% 500V
C611A	1-109-619-00	MICA 180PF 10% 500V
C611B	1-109-619-00	MICA 180PF 10% 500V
C612A	1-107-210-00	MICA 22PF 10% 500V
C612B	1-107-210-00	MICA 22PF 10% 500V
C613A	1-136-165-00	FILM 0.1MF 5% 50V
C613B	1-136-165-00	FILM 0.1MF 5% 50V
C614A	1-107-210-00	MICA 22PF 10% 500V
C614B	1-107-210-00	MICA 22PF 10% 500V
C615A	1-106-343-00	MYLAR 0.001MF 5% 50V
C615B	1-106-343-00	MYLAR 0.001MF 5% 50V
C616A	1-106-343-00	MYLAR 0.001MF 5% 50V
C616B	1-106-343-00	MYLAR 0.001MF 5% 50V
C618A	1-106-343-00	MYLAR 0.001MF 5% 50V
C618B	1-106-343-00	MYLAR 0.001MF 5% 50V
C619A	1-106-343-00	MYLAR 0.001MF 5% 50V
C619B	1-106-343-00	MYLAR 0.001MF 5% 50V
C621A	1-136-161-00	FILM 0.047MF 5% 50V
C621B	1-136-161-00	FILM 0.047MF 5% 50V
C622A	1-136-165-00	FILM 0.1MF 5% 50V
C622B	1-136-165-00	FILM 0.1MF 5% 50V
C626A	1-130-488-00	MYLAR 0.027MF 5% 50V
C626B	1-130-488-00	MYLAR 0.027MF 5% 50V
C627A	1-108-562-00	MYLAR 0.002MF 5% 50V
C627B	1-108-562-00	MYLAR 0.002MF 5% 50V
C628A	1-130-489-00	MYLAR 0.033MF 5% 50V
C628B	1-130-489-00	MYLAR 0.033MF 5% 50V
C629A	1-130-489-00	MYLAR 0.033MF 5% 50V
C629B	1-130-489-00	MYLAR 0.033MF 5% 50V
C630A	1-136-165-00	FILM 0.1MF 5% 50V
C630B	1-136-165-00	FILM 0.1MF 5% 50V
C631A	1-123-356-00	ELECT 10MF 20% 16V
C631B	1-123-356-00	ELECT 10MF 20% 16V
C632A	1-124-634-11	ELECT 1MF 250V
C632B	1-124-634-11	ELECT 1MF 250V
D620	8-719-911-19	DIODE 1SS119
D622	8-719-815-85	DIODE 1S1585
D601A	8-719-100-90	DIODE RD24E-B2
D601B	8-719-100-90	DIODE RD24E-B2
D602A	8-719-911-19	DIODE 1SS119
D602B	8-719-911-19	DIODE 1SS119
D603A	8-719-901-83	DIODE 1SS83
D603B	8-719-901-83	DIODE 1SS83

Ref.No.	Part No.	Description
D604A	8-719-901-83	DIODE 1SS83
D604B	8-719-901-83	DIODE 1SS83
D605A	8-719-911-19	DIODE 1SS119
D605B	8-719-911-19	DIODE 1SS119
D606A	8-719-300-28	DIODE STV-2H
D606B	8-719-300-28	DIODE STV-2H
D607A	8-719-911-19	DIODE 1SS119
D607B	8-719-911-19	DIODE 1SS119
D608A	8-719-911-19	DIODE 1SS119
D608B	8-719-911-19	DIODE 1SS119
D609A	8-719-911-19	DIODE 1SS119
D609B	8-719-911-19	DIODE 1SS119
D610A	8-719-911-19	DIODE 1SS119
D610B	8-719-911-19	DIODE 1SS119
D611A	8-719-815-85	DIODE 1S1585
D611B	8-719-815-85	DIODE 1S1585
D612A	8-719-815-85	DIODE 1S1585
D612B	8-719-815-85	DIODE 1S1585
D613A	8-719-900-95	DIODE V09G
D613B	8-719-900-95	DIODE V09G
D614A	8-719-900-95	DIODE V09G
D614B	8-719-900-95	DIODE V09G
D615A	8-719-911-19	DIODE 1SS119
D615B	8-719-911-19	DIODE 1SS119
D616A	8-719-911-19	DIODE 1SS119
D616B	8-719-911-19	DIODE 1SS119
D617A	8-719-911-19	DIODE 1SS119
D617B	8-719-911-19	DIODE 1SS119
D618A	8-719-911-19	DIODE 1SS119
D618B	8-719-911-19	DIODE 1SS119
D619A	8-719-911-19	DIODE 1SS119
D619B	8-719-911-19	DIODE 1SS119
D623A	8-719-911-19	DIODE 1SS119
D623B	8-719-911-19	DIODE 1SS119
D624A	8-719-815-85	DIODE 1S1585
D624B	8-719-815-85	DIODE 1S1585
D625A	8-719-815-85	DIODE 1S1585
D625B	8-719-815-85	DIODE 1S1585
D626A	8-719-815-85	DIODE 1S1585
D626B	8-719-815-85	DIODE 1S1585
D627A	8-719-815-85	DIODE 1S1585
D627B	8-719-815-85	DIODE 1S1585
D628A	8-719-815-85	DIODE 1S1585
D628B	8-719-815-85	DIODE 1S1585
D651A	8-719-300-85	DIODE STV-3H
D651B	8-719-300-85	DIODE STV-3H
L601A	1-422-358-11	COIL, AIR-CORE (0.9UH)
L601B	1-422-358-11	COIL, AIR-CORE (0.9UH)
Q620	8-729-224-02	TRANSISTOR 2SC2240-BL
Q621	8-729-224-02	TRANSISTOR 2SC2240-BL
Q622	8-729-207-02	TRANSISTOR 2SA970-BL
Q623	8-729-177-43	TRANSISTOR 2SD774
Q624	8-729-224-02	TRANSISTOR 2SC2240-BL
Q625	8-729-177-43	TRANSISTOR 2SD774
Q601A	8-729-625-91	TRANSISTOR 2SC2259
Q601B	8-729-625-91	TRANSISTOR 2SC2259
Q602A	8-729-101-93	TRANSISTOR 2SC945L
Q602B	8-729-101-93	TRANSISTOR 2SC945L
Q603A	1-807-978-11	TRANSISTOR 2SA1352
Q603B	1-807-978-11	TRANSISTOR 2SA1352
Q604A	1-870-978-11	TRANSISTOR 2SA1352
Q604B	1-870-978-11	TRANSISTOR 2SA1352
Q605A	1-807-977-11	TRANSISTOR 2SC3416
Q605B	1-807-977-11	TRANSISTOR 2SC3416
Q606A	1-807-978-11	TRANSISTOR 2SA1352
Q606B	1-807-978-11	TRANSISTOR 2SA1352
Q607A	1-807-978-11	TRANSISTOR 2SA1352
Q607B	1-807-978-11	TRANSISTOR 2SA1352
Q608A	1-807-977-11	TRANSISTOR 2SC3416
Q608B	1-807-977-11	TRANSISTOR 2SC3416
Q609A	8-729-318-63	TRANSISTOR 2SA1186
Q609B	8-729-318-63	TRANSISTOR 2SA1186

Ref.No.	Part No.	Description
Q610A	8-729-383-73	TRANSISTOR 2SC2837
Q610B	8-729-383-73	TRANSISTOR 2SC2837
Q611A	8-729-101-93	TRANSISTOR 2SC945L
Q611B	8-729-101-93	TRANSISTOR 2SC945L
Q612A	8-729-173-36	TRANSISTOR 2SA733-Q
Q612B	8-729-173-36	TRANSISTOR 2SA733-Q
Q613A	8-729-173-36	TRANSISTOR 2SA733-Q
Q613B	8-729-173-36	TRANSISTOR 2SA733-Q
Q614A	8-729-101-93	TRANSISTOR 2SC945L
Q614B	8-729-101-93	TRANSISTOR 2SC945L
Q615A	8-729-173-36	TRANSISTOR 2SA733-Q
Q615B	8-729-173-36	TRANSISTOR 2SA733-Q
Q616A	8-729-101-93	TRANSISTOR 2SC945L
Q616B	8-729-101-93	TRANSISTOR 2SC945L
Q617A	8-729-207-02	TRANSISTOR 2SA970-BL
Q617B	8-729-207-02	TRANSISTOR 2SA970-BL
Q618A	8-729-224-02	TRANSISTOR 2SC2240-BL
Q618B	8-729-224-02	TRANSISTOR 2SC2240-BL
Q619A	8-729-207-02	TRANSISTOR 2SA970-BL
Q619B	8-729-207-02	TRANSISTOR 2SA970-BL
R657	1-249-467-11	CARBON 68K 5% 1/4W
R658	1-249-467-11	CARBON 68K 5% 1/4W
R659	1-247-725-11	CARBON 10K 5% 1/4W
R660	1-247-725-11	CARBON 10K 5% 1/4W
R661	1-247-891-00	CARBON 330K 5% 1/4W
R662	1-247-891-00	CARBON 330K 5% 1/4W
R663 ⚠	1-206-662-00	METAL OXIDE 820 5% 2W
R664	1-247-172-00	CARBON 51K 5% 1/4W
R665	1-247-726-11	CARBON 33K 5% 1/4W
R667	1-247-700-11	CARBON 100 5% 1/4W
R601A	1-247-713-11	CARBON 1K 5% 1/4W
R601B	1-247-713-11	CARBON 1K 5% 1/4W
R602A	1-247-158-00	CARBON 13K 5% 1/4W
R602B	1-247-158-00	CARBON 13K 5% 1/4W
R603A	1-247-166-00	CARBON 30K 5% 1/4W
R603B	1-247-166-00	CARBON 30K 5% 1/4W
R604A	1-247-128-00	CARBON 750 5% 1/4W
R604B	1-247-128-00	CARBON 750 5% 1/4W
R605A	1-247-726-11	CARBON 33K 5% 1/4W
R605B	1-247-726-11	CARBON 33K 5% 1/4W
R606A	1-247-720-11	CARBON 3.9K 5% 1/4W
R606B	1-247-720-11	CARBON 3.9K 5% 1/4W
R607A	1-247-708-11	CARBON 470 5% 1/4W
R607B	1-247-708-11	CARBON 470 5% 1/4W
R608A	1-247-717-11	CARBON 2.2K 5% 1/4W
R608B	1-247-717-11	CARBON 2.2K 5% 1/4W
R609A	1-247-717-11	CARBON 2.2K 5% 1/4W
R609B	1-247-717-11	CARBON 2.2K 5% 1/4W
R610A	1-247-128-00	CARBON 750 5% 1/4W
R610B	1-247-128-00	CARBON 750 5% 1/4W
R611A ⚠	1-216-460-11	METAL OXIDE 3.9K 5% 2W
R611B ⚠	1-216-460-11	METAL OXIDE 3.9K 5% 2W
R612A ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R612B ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R613A ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R613B ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R614A ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R614B ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R615A ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R615B ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R616A ⚠	1-212-881-11	FUSIBLE 100 5% 1/4W
R616B ⚠	1-212-881-11	FUSIBLE 100 5% 1/4W
R617A ⚠	1-212-881-11	FUSIBLE 100 5% 1/4W
R617B ⚠	1-212-881-11	FUSIBLE 100 5% 1/4W
R618A ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R618B ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R619A ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R619B ⚠	1-217-411-00	FUSIBLE 1K 5% 1/4W
R620A ⚠	1-212-857-00	FUSIBLE 10 5% 1/4W
R620B ⚠	1-212-857-00	FUSIBLE 10 5% 1/4W
R621A ⚠	1-212-857-00	FUSIBLE 10 5% 1/4W
R621B ⚠	1-212-857-00	FUSIBLE 10 5% 1/4W
R622A	1-247-726-11	CARBON 33K 5% 1/4W
R622B	1-247-726-11	CARBON 33K 5% 1/4W

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description			
R623A⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R623B⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R624A⚠	1-247-698-11	CARBON	68	5%	1/4W
R624B⚠	1-247-698-11	CARBON	68	5%	1/4W
R625A⚠	1-247-698-11	CARBON	68	5%	1/4W
R625B⚠	1-247-698-11	CARBON	68	5%	1/4W
R626A⚠	1-212-869-00	FUSIBLE	33	5%	1/4W
R626B⚠	1-212-869-00	FUSIBLE	33	5%	1/4W
R627A⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R627B⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R628A⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R628B⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R629A⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R629B⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R630A⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R630B⚠	1-207-616-00	WIREWOUND	0.47	10%	3W
R635A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R635B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R636A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R636B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R637A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R637B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R638A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R638B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R639A⚠	1-247-725-11	CARBON	10K	5%	1/4W
R639B⚠	1-247-725-11	CARBON	10K	5%	1/4W
R640A⚠	1-247-725-11	CARBON	10K	5%	1/4W
R640B⚠	1-247-725-11	CARBON	10K	5%	1/4W
R643A⚠	1-247-115-11	CARBON	220	5%	1/4W
R643B⚠	1-247-115-11	CARBON	220	5%	1/4W
R644A⚠	1-247-115-11	CARBON	220	5%	1/4W
R644B⚠	1-247-115-11	CARBON	220	5%	1/4W
R645A⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R645B⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R646A⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R646B⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R647A⚠	1-215-880-00	METAL OXIDE	10	5%	2W
R647B⚠	1-215-880-00	METAL OXIDE	10	5%	2W
R648A	1-247-725-11	CARBON	10K	5%	1/4W
R648B	1-247-725-11	CARBON	10K	5%	1/4W
R649A	1-247-166-00	CARBON	30K	5%	1/4W
R649B	1-247-166-00	CARBON	30K	5%	1/4W
R650A	1-247-166-00	CARBON	30K	5%	1/4W
R650B	1-247-166-00	CARBON	30K	5%	1/4W
R651A	1-249-467-11	CARBON	68K	5%	1/4W
R651B	1-249-467-11	CARBON	68K	5%	1/4W
R652A	1-247-725-11	CARBON	10K	5%	1/4W
R652B	1-247-725-11	CARBON	10K	5%	1/4W
R653A	1-247-715-11	CARBON	1.5K	5%	1/4W
R653B	1-247-715-11	CARBON	1.5K	5%	1/4W
R654A	1-247-715-11	CARBON	1.5K	5%	1/4W
R654B	1-247-715-11	CARBON	1.5K	5%	1/4W
R655A	1-247-715-11	CARBON	1.5K	5%	1/4W
R655B	1-247-715-11	CARBON	1.5K	5%	1/4W
R656A	1-249-465-11	CARBON	47K	5%	1/4W
R656B	1-249-465-11	CARBON	47K	5%	1/4W
R666A	1-247-715-11	CARBON	1.5K	5%	1/4W
R666B	1-247-715-11	CARBON	1.5K	5%	1/4W
R668A⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R668B⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R670A⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R670B⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R671A⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R671B⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R677A⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
R677B⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
R678A⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
R678B⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
RE601	1-515-611-11	RELAY, MINIATURE POWER			
VR601A	1-224-550-21	RES, ADJ, SOLID 220			
VR601B	1-224-550-21	RES, ADJ, SOLID 220			

Ref.No.	Part No.	Description
	MISCELLANEOUS	
C851	1-125-425-11	CAP, ELECT 18000MF
C852	1-125-425-11	CAP, ELECT 18000MF
CNJ ⚠	1-560-222-21	INLET 3P
D651A	8-719-300-85	DIODE STV-3H
D651B	8-719-300-85	DIODE STV-3H
D701	8-719-901-83	DIODE TLR124
D754	8-719-812-41	DIODE SLP124
D851 ⚠	8-719-325-40	DIODE S25VB40
F1 ⚠	1-532-350-00	(AEP/E).....FUSE, TIME-LAG (4A)
F1 ⚠	1-532-510-11	(US/Canadian)..FUSE, TIME-LAG (8A)
PT1 ⚠	1-449-112-11	(AEP/E).....TRANSFORMER, POWER
PT1 ⚠	1-449-111-11	(US/Canadian)..TRANSFORMER, POWER
Q651A	1-807-979-11	TRANSISTOR 2SB554
Q651B	1-807-979-11	TRANSISTOR 2SB554
Q652A	8-729-358-61	TRANSISTOR 2SC1586
Q652B	8-729-358-61	TRANSISTOR 2SC1586
Q653A	1-807-979-11	TRANSISTOR 2SB554
Q653B	1-807-979-11	TRANSISTOR 2SB554
Q654A	8-729-358-61	TRANSISTOR 2SC1586
Q654B	8-729-358-61	TRANSISTOR 2SC1586
S1 ⚠	1-571-355-11	SWITCH, ROTARY (AC POWER)
S901	1-570-466-11	SWITCH, SLIDE
VR651A	1-237-082-11	RES, VAR, CARBON 10K
VR651B	1-237-082-11	RES, VAR, CARBON 10K

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

MU-A301 EVECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

Ref.No.	Part No.	Description			
71	*1-617-375-11	PC BOARD, LED (LEFT) **********			
D751A	8-719-909-20	DIODE GL-9NG2			
D752A	8-719-909-20	DIODE GL-9NG2			
D753A	8-719-915-45	DIODE SLP162B			
**********					
71	*1-617-374-11	PC BOARD, LED (RIGHT) **********			
D751B	8-719-909-20	DIODE GL-9NG2			
D752B	8-719-909-20	DIODE GL-9NG2			
D753B	8-719-915-45	DIODE SLP162B			
**********					
72	*1-617-373-11	PC BOARD, LED DRIVER **********			
C702	1-123-380-00	ELECT	1MF	20%	50V
C703	1-123-335-00	ELECT	330MF	20%	25V
C704	1-123-335-00	ELECT	330MF	20%	25V
C701A	1-130-491-00	MYLAR	0.047MF	5%	50V
C701B	1-130-491-00	MYLAR	0.047MF	5%	50V
D704	8-719-109-93	DIODE RD6.2ES B2			
D705	8-719-511-40	DIODE S1VB40			
D706	8-719-901-83	DIODE 1SS83			
D701A	8-719-901-83	DIODE 1SS83			
D701B	8-719-901-83	DIODE 1SS83			
D702A	8-719-901-83	DIODE 1SS83			
D702B	8-719-901-83	DIODE 1SS83			
D703A	8-719-901-83	DIODE 1SS83			
D703B	8-719-901-83	DIODE 1SS83			
IC701A	8-759-145-58	IC UPC4558C			
IC701B	8-759-145-58	IC UPC4558C			
R709	1-246-478-25	CARBON	1.6K	5%	1/4W
R710 ⚠	1-247-708-11	CARBON	470	5%	1/4W
R701A	1-247-725-11	CARBON	10K	5%	1/4W
R701B	1-247-725-11	CARBON	10K	5%	1/4W
R702A ⚠	1-247-700-11	CARBON	100	5%	1/4W
R702B ⚠	1-247-700-11	CARBON	100	5%	1/4W
R703A	1-246-544-00	CARBON	910K	5%	1/4W
R703B	1-246-544-00	CARBON	910K	5%	1/4W
R704A	1-246-522-00	CARBON	110K	5%	1/4W
R704B	1-246-522-00	CARBON	110K	5%	1/4W
R705A	1-247-136-00	CARBON	1.6K	5%	1/4W
R705B	1-247-136-00	CARBON	1.6K	5%	1/4W
R706A	1-247-174-00	CARBON	62K	5%	1/4W
R706B	1-247-174-00	CARBON	62K	5%	1/4W
R707A	1-247-712-11	CARBON	820	5%	1/4W
R707B	1-247-712-11	CARBON	820	5%	1/4W
R708A	1-247-712-11	CARBON	820	5%	1/4W
R708B	1-247-712-11	CARBON	820	5%	1/4W
R711 ⚠	1-217-381-21	FUSIBLE	3.3	5%	1/4W
R712 ⚠	1-217-381-21	FUSIBLE	3.3	5%	1/4W
**********					
73	*1-617-378-11	PC BOARD, INPUT (LEFT) **********			
C704A	1-161-055-00	CERAMIC	0.022MF	5%	50V
J1A	1-563-081-11	JACK, LARGE TYPE			
J2A	1-563-081-11	JACK, LARGE TYPE			
J3A	*1-563-080-11	CONNECTOR (RECEPTACLE) 3P			
**********					
74	*1-617-379-11	PC BOARD, INPUT (RIGHT) **********			
C704B	1-161-055-00	CERAMIC	0.022MF	5%	50V
J1B	1-563-081-11	JACK, LARGE TYPE			
J2B	1-563-081-11	JACK, LARGE TYPE			
J3B	*1-563-080-11	CONNECTOR (RECEPTACLE) 3P			
**********					
3	*1-617-376-11	PC BOARD, TRANSLATION			
3	*1-617-377-11	PC BOARD, TRANSLATION **********			
3	1-526-853-11	SOCKET, TR			
25	*1-535-117-00	TERMINAL 4P			
R680A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R680B ⚠	1-247-694-11	CARBON	33	5%	1/4W
R681A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R681B ⚠	1-247-694-11	CARBON	33	5%	1/4W
R682A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R682B ⚠	1-247-694-11	CARBON	33	5%	1/4W
R683A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R683B ⚠	1-247-694-11	CARBON	33	5%	1/4W
R684A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R684B ⚠	1-247-694-11	CARBON	33	5%	1/4W
R685A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R685B ⚠	1-247-694-11	CARBON	33	5%	1/4W
R686A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R686B ⚠	1-247-694-11	CARBON	33	5%	1/4W
R687A ⚠	1-247-694-11	CARBON	33	5%	1/4W
R687B ⚠	1-247-694-11	CARBON	33	5%	1/4W
**********					
C801	1-123-345-11	ELECT	100	20%	35V
C802	1-123-345-11	ELECT	100	20%	35V
C803	1-123-503-11	ELECT	47	20%	35V
C804	1-123-503-11	ELECT	47	20%	35V
D801	8-719-511-40	DIODE S1VB40			
D802	8-719-900-95	DIODE Y06C			
F2	⚠ 1-532-991-11	FUSE, TEMPERATURE			
Q801	8-729-600-28	TRANSISTOR 2SC945-K			
Q802	8-729-177-43	TRANSISTOR 2SD774			
R801 ⚠	1-217-381-11	FUSIBLE	3.3	5%	1/4W
R802 ⚠	1-217-381-11	FUSIBLE	3.3	5%	1/4W
R803 ⚠	1-217-387-11	FUSIBLE	10	5%	1/4W
R804	1-246-521-15	CARBON	100K	5%	1/4W
R805	1-246-521-15	CARBON	100K	5%	1/4W
R806	1-249-462-11	CARBON	22K	5%	1/4W
R807	1-205-929-11	WIREWOUND	10	10%	30W
RE801 ⚠	1-515-560-11	RELAY			
**********					
64	*A-4588-211-A	MOUNTED PCB, CONTROL **********			
28	*1-535-115-00	TERMINAL 2P			
29	*1-535-116-00	TERMINAL 3P			
37	*1-535-121-00	TERMINAL 8P			
70	*1-535-123-00	TERMINAL 10P			
C623	1-124-013-51	ELECT	100MF	20%	16V
C624	1-123-381-00	ELECT	2.2MF	20%	50V
C625	1-123-357-00	ELECT	22MF	20%	35V

Ref.No.	Part No.	Description			
C601A	1-130-789-00	MYLAR	1MF	10%	100V
C601B	1-130-789-00	MYLAR	1MF	10%	100V
C602A	1-123-380-00	ELECT	1MF	20%	50V
C602B	1-123-380-00	ELECT	1MF	20%	50V
C603A	1-109-619-00	MICA	180PF	10%	500V
C603B	1-109-619-00	MICA	180PF	10%	500V
C604A	1-130-495-00	MYLAR	0.1MF	5%	50V
C604B	1-130-495-00	MYLAR	0.1MF	5%	50V
C605A	1-107-210-00	MICA	22PF	10%	500V
C605B	1-107-210-00	MICA	22PF	10%	500V
C606A	1-123-180-11	ELECT	100MF	20%	6.3V
C606A	1-123-180-11	ELECT	100MF	20%	6.3V
C609A	1-107-045-00	MICA	3.9PF	0.5PF	500V
C609B	1-107-045-00	MICA	3.9PF	0.5PF	500V
C610A	1-109-619-00	MICA	180PF	10%	500V
C610B	1-109-619-00	MICA	180PF	10%	500V
C611A	1-109-619-00	MICA	180PF	10%	500V
C611B	1-109-619-00	MICA	180PF	10%	500V
C612A	1-109-630-00	MICA	270PF	10%	500V
C612B	1-109-630-00	MICA	270PF	10%	500V
C613A	1-130-495-00	MYLAR	0.1MF	5%	50V
C613B	1-130-495-00	MYLAR	0.1MF	5%	50V
C614A	1-109-630-00	MICA	270PF	10%	500V
C614B	1-109-630-00	MICA	270PF	10%	500V
C615A	1-106-343-00	MYLAR	0.001MF	5%	50V
C615B	1-106-343-00	MYLAR	0.001MF	5%	50V
C616A	1-106-343-00	MYLAR	0.001MF	5%	50V
C616B	1-106-343-00	MYLAR	0.001MF	5%	50V
C618A	1-136-153-00	FILM	0.01MF	5%	50V
C618B	1-136-153-00	FILM	0.01MF	5%	50V
C619A	1-136-153-00	FILM	0.01MF	5%	50V
C619B	1-136-153-00	FILM	0.01MF	5%	50V
C621A	1-130-491-00	MYLAR	0.047MF	5%	50V
C621B	1-130-491-00	MYLAR	0.047MF	5%	50V
C622A	1-130-495-00	MYLAR	0.1MF	5%	50V
C622B	1-130-495-00	MYLAR	0.1MF	5%	50V
C626A	1-130-488-00	MYLAR	0.027MF	5%	50V
C626B	1-130-488-00	MYLAR	0.027MF	5%	50V
C627A	1-108-562-00	MYLAR	0.002MF	5%	50V
C627B	1-108-562-00	MYLAR	0.002MF	5%	50V
C628A	1-130-489-00	MYLAR	0.033MF	5%	50V
C628B	1-130-489-00	MYLAR	0.033MF	5%	50V
C629A	1-130-489-00	MYLAR	0.033MF	5%	50V
C629B	1-130-489-00	MYLAR	0.033MF	5%	50V
C630A	1-130-495-00	MYLAR	0.1MF	5%	50V
C630B	1-130-495-00	MYLAR	0.1MF	5%	50V
C631A	1-123-356-00	ELECT	10MF	20%	16V
C631B	1-123-356-00	ELECT	10MF	20%	16V
C632A	1-124-634-11	ELECT	1MF		250V
C632B	1-124-634-11	ELECT	1MF		250V
D620	8-719-911-19	DIODE 1SS119			
D622	8-719-815-85	DIODE 1S1585			
D601A	8-719-100-90	DIODE RD24E-B2			
D601B	8-719-100-90	DIODE RD24E-B2			
D602A	8-719-911-19	DIODE 1SS119			
D602B	8-719-911-19	DIODE 1SS119			
D603A	8-719-901-83	DIODE 1SS83			
D603B	8-719-901-83	DIODE 1SS83			
D604A	8-719-901-83	DIODE 1SS83			
D604B	8-719-901-83	DIODE 1SS83			
D605A	8-719-911-19	DIODE 1SS119			
D605B	8-719-911-19	DIODE 1SS119			
D606A	8-719-300-28	DIODE STV-2H			
D606B	8-719-300-28	DIODE STV-2H			
D607A	8-719-911-19	DIODE 1SS119			
D607B	8-719-911-19	DIODE 1SS119			
D608A	8-719-911-19	DIODE 1SS119			
D608B	8-719-911-19	DIODE 1SS119			
D609A	8-719-911-19	DIODE 1SS119			
D609B	8-719-911-19	DIODE 1SS119			
D610A	8-719-911-19	DIODE 1SS119			
D610B	8-719-911-19	DIODE 1SS119			
D611A	8-719-815-85	DIODE 1S1585			
D611B	8-719-815-85	DIODE 1S1585			

Ref.No.	Part No.	Description
D612A	8-719-815-85	DIODE 1S1585
D612B	8-719-815-85	DIODE 1S1585
D613A	8-719-900-95	DIODE V09G
D613B	8-719-900-95	DIODE V09G
D614A	8-719-900-95	DIODE V09G
D614B	8-719-900-95	DIODE V09G
D615A	8-719-911-19	DIODE 1SS119
D615B	8-719-911-19	DIODE 1SS119
D616A	8-719-911-19	DIODE 1SS119
D616B	8-719-911-19	DIODE 1SS119
D617A	8-719-911-19	DIODE 1SS119
D617B	8-719-911-19	DIODE 1SS119
D618A	8-719-911-19	DIODE 1SS119
D618B	8-719-911-19	DIODE 1SS119
D619A	8-719-911-19	DIODE 1SS119
D619B	8-719-911-19	DIODE 1SS119
D623A	8-719-911-19	DIODE 1SS119
D623B	8-719-911-19	DIODE 1SS119
D624A	8-719-815-85	DIODE 1S1585
D624B	8-719-815-85	DIODE 1S1585
D625A	8-719-815-85	DIODE 1S1585
D625B	8-719-815-85	DIODE 1S1585
D626A	8-719-815-85	DIODE 1S1585
D626B	8-719-815-85	DIODE 1S1585
D627A	8-719-815-85	DIODE 1S1585
D627B	8-719-815-85	DIODE 1S1585
D628A	8-719-911-19	DIODE 1SS119
D628B	8-719-911-19	DIODE 1SS119
D651A	8-719-300-85	DIODE STV-3H
D651A	8-719-300-85	DIODE STV-3H
L601A	1-422-358-11	COIL, AIR-CORE (0.9UH)
L601B	1-422-358-11	COIL, AIR-CORE (0.9UH)
Q601A	8-729-625-91	TRANSISTOR 2SC2259
Q601B	8-729-625-91	TRANSISTOR 2SC2259
Q602A	8-729-101-93	TRANSISTOR 2SC945L
Q602B	8-729-101-93	TRANSISTOR 2SC945L
Q603A	1-807-978-11	TRANSISTOR 2SA1352
Q603B	1-807-978-11	TRANSISTOR 2SA1352
Q604A	1-807-978-11	TRANSISTOR 2SA1352
Q604B	1-807-978-11	TRANSISTOR 2SA1352
Q605A	1-807-977-11	TRANSISTOR 2SC3416
Q605B	1-807-977-11	TRANSISTOR 2SC3416
Q606A	1-807-978-11	TRANSISTOR 2SA1352
Q606B	1-807-978-11	TRANSISTOR 2SA1352
Q607A	1-807-978-11	TRANSISTOR 2SA1352
Q607B	1-807-978-11	TRANSISTOR 2SA1352
Q608A	1-807-977-11	TRANSISTOR 2SC3416
Q608B	1-807-977-11	TRANSISTOR 2SC3416
Q609A	8-729-318-63	TRANSISTOR 2SA1186
Q609B	8-729-318-63	TRANSISTOR 2SA1186
Q610A	8-729-383-73	TRANSISTOR 2SC2837
Q610B	8-729-383-73	TRANSISTOR 2SC2837
Q611A	8-729-101-93	TRANSISTOR 2SC945L
Q611B	8-729-101-93	TRANSISTOR 2SC945L
Q612A	8-729-173-36	TRANSISTOR 2SA733-Q
Q612B	8-729-173-36	TRANSISTOR 2SA733-Q
Q613A	8-729-173-36	TRANSISTOR 2SA733-Q
Q613B	8-729-173-36	TRANSISTOR 2SA733-Q
Q614A	8-729-101-93	TRANSISTOR 2SC945L
Q614B	8-729-101-93	TRANSISTOR 2SC945L
Q615A	8-729-173-36	TRANSISTOR 2SA733-Q
Q615B	8-729-173-36	TRANSISTOR 2SA733-Q
Q616A	8-729-101-93	TRANSISTOR 2SC945L
Q616B	8-729-101-93	TRANSISTOR 2SC945L
Q617A	8-729-207-02	TRANSISTOR 2SA970-BL
Q617B	8-729-207-02	TRANSISTOR 2SA970-BL
Q618A	8-729-224-02	TRANSISTOR 2SC2240-BL
Q618B	8-729-224-02	TRANSISTOR 2SC2240-BL
Q619A	8-729-207-02	TRANSISTOR 2SA970-BL
Q619B	8-729-207-02	TRANSISTOR 2SA970-BL
Q620	8-729-224-02	TRANSISTOR 2SC2240-BL
Q621	8-729-224-02	TRANSISTOR 2SC2240-BL

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description			
Q622	8-729-207-02	TRANSISTOR 2SA970-BL			
Q623	8-729-177-43	TRANSISTOR 2SD774			
Q624	8-729-224-02	TRANSISTOR 2SC2240-BL			
Q625	8-729-177-43	TRANSISTOR 2SD774			
R657	1-249-467-11	CARBON	68K	5%	1/4W
R658	1-249-467-11	CARBON	68K	5%	1/4W
R659	1-247-725-11	CARBON	10K	5%	1/4W
R660	1-247-725-11	CARBON	10K	5%	1/4W
R661	1-247-891-00	CARBON	330K	5%	1/4W
R662	1-247-891-00	CARBON	330K	5%	1/4W
R663 ⚠	1-206-669-00	METAL OXIDE	1.6K	5%	2W
R664	1-249-465-11	CARBON	47K	5%	1/4W
R665	1-247-726-11	CARBON	33K	5%	1/4W
R667	1-247-700-11	CARBON	100	5%	1/4W
R601A	1-247-713-11	CARBON	1K	5%	1/4W
R601B	1-247-713-11	CARBON	1K	5%	1/4W
R602A	1-247-158-00	CARBON	13K	5%	1/4W
R602B	1-247-158-00	CARBON	13K	5%	1/4W
R603A	1-247-166-00	CARBON	30K	5%	1/4W
R603B	1-247-166-00	CARBON	30K	5%	1/4W
R604A	1-247-709-11	CARBON	510	5%	1/4W
R604B	1-247-709-11	CARBON	510	5%	1/4W
R605A	1-247-726-11	CARBON	33K	5%	1/4W
R605B	1-247-726-11	CARBON	33K	5%	1/4W
R606A	1-247-720-11	CARBON	3.9K	5%	1/4W
R606B	1-247-720-11	CARBON	3.9K	5%	1/4W
R607A	1-247-142-00	CARBON	3K	5%	1/4W
R607B	1-247-142-00	CARBON	3K	5%	1/4W
R608A	1-247-717-11	CARBON	2.2K	5%	1/4W
R608B	1-247-717-11	CARBON	2.2K	5%	1/4W
R609A	1-247-717-11	CARBON	2.2K	5%	1/4W
R609B	1-247-717-11	CARBON	2.2K	5%	1/4W
R610A	1-247-709-11	CARBON	510	5%	1/4W
R610B	1-247-709-11	CARBON	510	5%	1/4W
R611A⚠	1-206-683-00	METAL OXIDE	6.2K	5%	2W
R611B⚠	1-206-683-00	METAL OXIDE	6.2K	5%	2W
R612A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R612B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R613A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R613B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R614A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R614B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R615A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R615B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R616A⚠	1-212-881-11	FUSIBLE	100	5%	1/4W
R616B⚠	1-212-881-11	FUSIBLE	100	5%	1/4W
R617A⚠	1-212-881-11	FUSIBLE	100	5%	1/4W
R617B⚠	1-212-881-11	FUSIBLE	100	5%	1/4W
R618A⚠	1-247-721-11	CARBON	4.7K	5%	1/4W
R618B⚠	1-247-721-11	CARBON	4.7K	5%	1/4W
R619A⚠	1-247-721-11	CARBON	4.7K	5%	1/4W
R619B⚠	1-247-721-11	CARBON	4.7K	5%	1/4W
R620A⚠	1-212-857-00	FUSIBLE	10	5%	1/4W
R620B⚠	1-212-857-00	FUSIBLE	10	5%	1/4W
R621A⚠	1-212-857-00	FUSIBLE	10	5%	1/4W
R621B⚠	1-212-857-00	FUSIBLE	10	5%	1/4W
R622A	1-247-726-11	CARBON	33K	5%	1/4W
R622B	1-247-726-11	CARBON	33K	5%	1/4W
R623A⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R623B⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R624A⚠	1-247-698-11	CARBON	68	5%	1/4W
R624B⚠	1-247-698-11	CARBON	68	5%	1/4W
R625A⚠	1-247-698-11	CARBON	68	5%	1/4W
R625B⚠	1-247-698-11	CARBON	68	5%	1/4W
R626A⚠	1-212-869-00	FUSIBLE	33	5%	1/4W
R626B⚠	1-212-869-00	FUSIBLE	33	5%	1/4W
R627A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R627B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R628A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R628B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R629A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R629B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R630A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R630B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W

Ref.No.	Part No.	Description			
R631A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R631B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R632A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R632B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R633A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R633B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R634A⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R634B⚠	1-216-365-00	METAL OXIDE	0.47	5%	2W
R635A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R635B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R636A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R636B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R637A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R637B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R638A⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R638B⚠	1-217-411-00	FUSIBLE	1K	5%	1/4W
R639A⚠	1-247-725-11	CARBON	10K	5%	1/4W
R639B⚠	1-247-725-11	CARBON	10K	5%	1/4W
R640A⚠	1-247-725-11	CARBON	10K	5%	1/4W
R640B⚠	1-247-725-11	CARBON	10K	5%	1/4W
R643A⚠	1-247-115-11	CARBON	220	5%	1/4W
R643B⚠	1-247-115-11	CARBON	220	5%	1/4W
R644A⚠	1-247-115-11	CARBON	220	5%	1/4W
R644B⚠	1-247-115-11	CARBON	220	5%	1/4W
R645A⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R645B⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R646A⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R646B⚠	1-206-518-00	METAL OXIDE	20	5%	3W
R647A⚠	1-215-880-00	METAL OXIDE	10	5%	2W
R647B⚠	1-215-880-00	METAL OXIDE	10	5%	2W
R648A	1-247-725-11	CARBON	10K	5%	1/4W
R648B	1-247-725-11	CARBON	10K	5%	1/4W
R649A	1-247-166-00	CARBON	30K	5%	1/4W
R649B	1-247-166-00	CARBON	30K	5%	1/4W
R650A	1-247-166-00	CARBON	30K	5%	1/4W
R650B	1-247-166-00	CARBON	30K	5%	1/4W
R651A	1-249-467-11	CARBON	68K	5%	1/4W
R651B	1-249-467-11	CARBON	68K	5%	1/4W
R652A	1-247-725-11	CARBON	10K	5%	1/4W
R652B	1-247-725-11	CARBON	10K	5%	1/4W
R653A	1-247-717-11	CARBON	2.2K	5%	1/4W
R653B	1-247-717-11	CARBON	2.2K	5%	1/4W
R654A	1-247-717-11	CARBON	2.2K	5%	1/4W
R654B	1-247-717-11	CARBON	2.2K	5%	1/4W
R655A	1-247-717-11	CARBON	2.2K	5%	1/4W
R655B	1-247-717-11	CARBON	2.2K	5%	1/4W
R656A	1-249-465-11	CARBON	47K	5%	1/4W
R656B	1-249-465-11	CARBON	47K	5%	1/4W
R666A	1-247-715-11	CARBON	1.5K	5%	1/4W
R666B	1-247-715-11	CARBON	1.5K	5%	1/4W
R668A⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R668B⚠	1-212-889-00	FUSIBLE	220	5%	1/4W
R670A⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R670B⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R671A⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R671B⚠	1-247-715-11	CARBON	1.5K	5%	1/4W
R677A⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
R677B⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
R678A⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
R678B⚠	1-217-640-11	FUSIBLE	3.3	5%	1/4W
RE601	1-515-611-11	RELAY, MINIATURE POWER			
RV601A	1-224-550-21	RES, ADJ, SOLID 220			
RV601B	1-224-550-21	RES, ADJ, SOLID 220			

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
	MISCELLANEOUS	
C851	1-125-425-11	CAP, ELECT 18000MF
C852	1-125-425-11	CAP, ELECT 18000MF
CNJ	⚠1-560-222-21	INLET 3P
D651A	8-719-300-85	DIODE STV-3H
D651B	8-719-300-85	DIODE STV-3H
D701	8-719-901-83	DIODE 1SS83
D754	8-719-812-41	DIODE TLR124
D851	⚠8-719-325-40	DIODE S25VB40
F1	⚠1-532-325-00	(AEP/E).....FUSE, TIME-LAG (6.3A)
F1		(US/Canadian)..FUSE, TIME-LAG (15A)
PT1	⚠1-449-110-11	(AEP/E).....TRANSFORMER, POWER
PT1	⚠1-449-109-11	(US/Canadian)..TRANSFORMER, POWER
Q651A	1-807-979-11	TRANSISTOR 2SB554
Q651B	1-807-979-11	TRANSISTOR 2SB554
Q652A	8-729-358-61	TRANSISTOR 2SC1586
Q652B	8-729-358-61	TRANSISTOR 2SC1586
Q653A	1-807-979-11	TRANSISTOR 2SB554
Q653B	1-807-979-11	TRANSISTOR 2SB554
Q654A	8-729-358-61	TRANSISTOR 2SC1586
Q654B	8-729-358-61	TRANSISTOR 2SC1586
Q655A	1-807-979-11	TRANSISTOR 2SB554
Q655B	1-807-979-11	TRANSISTOR 2SB554
Q656A	8-729-358-61	TRANSISTOR 2SC1586
Q656B	8-729-358-61	TRANSISTOR 2SC1586
Q657A	1-807-979-11	TRANSISTOR 2SB554
Q657B	1-807-979-11	TRANSISTOR 2SB554
Q658A	8-729-358-61	TRANSISTOR 2SC1586
Q658B	8-729-358-61	TRANSISTOR 2SC1586
S1	⚠1-571-355-11	SWITCH, ROTARY (AC POWER)
S2	⚠1-570-467-11	SWITCH, THERMAL
S3	⚠1-570-467-11	SWITCH, THERMAL
S901	1-570-466-11	SWITCH, SLIDE
VR651A	1-237-082-11	RES, VAR, CARBON 10K
VR651B	1-237-082-11	RES, VAR, CARBON 10K

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

9-977-018-12

SONY Sound Tec Corporation

English
89A0409-1
Printed in Japan
©1989. 1

MU-A151/A301

SERVICE MANUAL

E Model
AEP Model

PRELIMINARY

SPECIFICATIONS

MU-A151

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 8 ohm loads, both channels driven, from 20 – 20,000 Hz; rated 100 watts per channel minimum RMS power with no more than 0.05% total harmonic distortion from 250 milliwatts to rated output.

OTHER SPECIFICATIONS

Rated output power	150 W + 150 W (both channels driven into 4 ohms, 20 – 20,000 Hz) 300 W (into 8 ohms, 20 – 20,000 Hz, monaural)
Power bandwidth	20 – 30,000 Hz (75 W, both channels driven into 4 ohms, 0.1% THD)
Damping factor	200 (at 1 kHz, 4 ohms, 25 W)
Residual noise	40 µV (IHF-A) 150 µV (WIDE)
Input impedance	10 k ohms
Input sensitivity	1.1 V rms (4 ohms, 150 W)
Indicators	POWER indicator CLIP (clipping) indicators (for channels 1 and 2)
Input connectors	INPUT 1/MONO: Phone jack × 2 Cannon XLR-3-31 type × 1 INPUT 2: Phone jack × 2 Cannon XLR-3-31 type × 1
Output connectors	OUTPUT 1 and OUTPUT 2: Screw-on terminal × 2
Power requirements	220 or 240 V AC, 50/60 Hz (AE model)
Power consumption	310 W (AE model)
Dimensions	Approx. 440 × 100 × 402 mm (w/h/d) ($17\frac{3}{8} \times 4 \times 15\frac{7}{8}$ inches) including projecting parts and controls
Dimensions of front panel	Approx. 440 × 88 mm (w/h) ($17\frac{3}{8} \times 3\frac{1}{2}$ inches)
Weight	Approx. 13 kg (28 lb 10 oz)
Accessories supplied	Rack mount bracket (2U) 1 set Fuse × 1

Design and specifications subject to change without notice.

MU-A301

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 8 ohm loads, both channels driven, from 20 – 20,000 Hz; rated 200 watts per channel minimum RMS power with no more than 0.05% total harmonic distortion from 250 milliwatts to rated output.

OTHER SPECIFICATIONS

Rated output power	300 W + 300 W (both channels driven into 4 ohms, 20 – 20,000 Hz) 600 W (into 8 ohms, 20 – 20,000 Hz, monaural)
Power bandwidth	20 – 30,000 Hz (150 W, both channels driven into 4 ohms, 0.1% THD)
Damping factor	150 (at 1 kHz, 4 ohms, 25 W)
Residual noise	50 µV (IHF-A) 200 µV (WIDE)
Input impedance	10 k ohms
Input sensitivity	1.1 V rms (4 ohms, 300 W)
Indicators	POWER indicator – 30 dB indicators (for channels 1 and 2) RATE (rated level) indicators (for channels 1 and 2) CLIP (clipping) indicators (for channels 1 and 2)
Input connectors	INPUT 1/MONO: Phone jack × 2 Cannon XLR-3-31 type × 1 INPUT 2: Phone jack × 2 Cannon XLR-3-31 type × 1
Output connectors	OUTPUT 1 and OUTPUT 2: Screw-on terminal × 2
Power requirements	220 or 240 V AC, 50/60 Hz (AE model)
Power consumption	520 W (AE model)
Dimensions	Approx. 440 × 144 × 409 mm (w/h/d) ($17\frac{3}{8} \times 5\frac{3}{4} \times 16\frac{1}{8}$ inches) including projecting parts and controls
Dimensions of front panel	Approx. 440 × 132 mm (w/h) ($17\frac{3}{8} \times 5\frac{1}{4}$ inches)
Weight	Approx. 16 kg (35 lb 4 oz)
Accessories supplied	Rack mount bracket (3U) 1 set Fuse × 1

PROFESSIONAL POWER AMPLIFIER

SONY®

MICROFILM

9-977-018-11

English
88C0408-1
Printed in Japan
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Sony Sound Tec Corporation

PRINTED WIRING BOARDS (MU-A151)

【INPUT BOARD CH1】

INPUT 1 / MONO (UNBALANCED)

【INPUT BOARD CH2】

INPUT 2 (UNBALANCED)

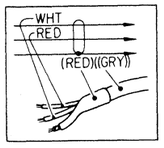
【CONTROL BOARD】

【LED BOARD CH1】

【LED BOARD CH2】

Note:

- Color code or sleeving over the end of the jacket.



- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

A B C D E F G H I J

【CONTROL BOARD】

SMK2894V-0

【LED BOARD CH1】

SMK1194V-0

【LED BOARD CH2】

SMK1194V-0

PT1 (POWER TRANS)

S2 (90°C)

S3 (90°C)

CNJ

~ AC INPUT

WHT(220V) YEL(220V) BRN

OUTPUT 1

OUTPUT 2

F FUSE

S1 POWER

D754 POWER

SCHEMATIC DIAGRAM (MU-A151)

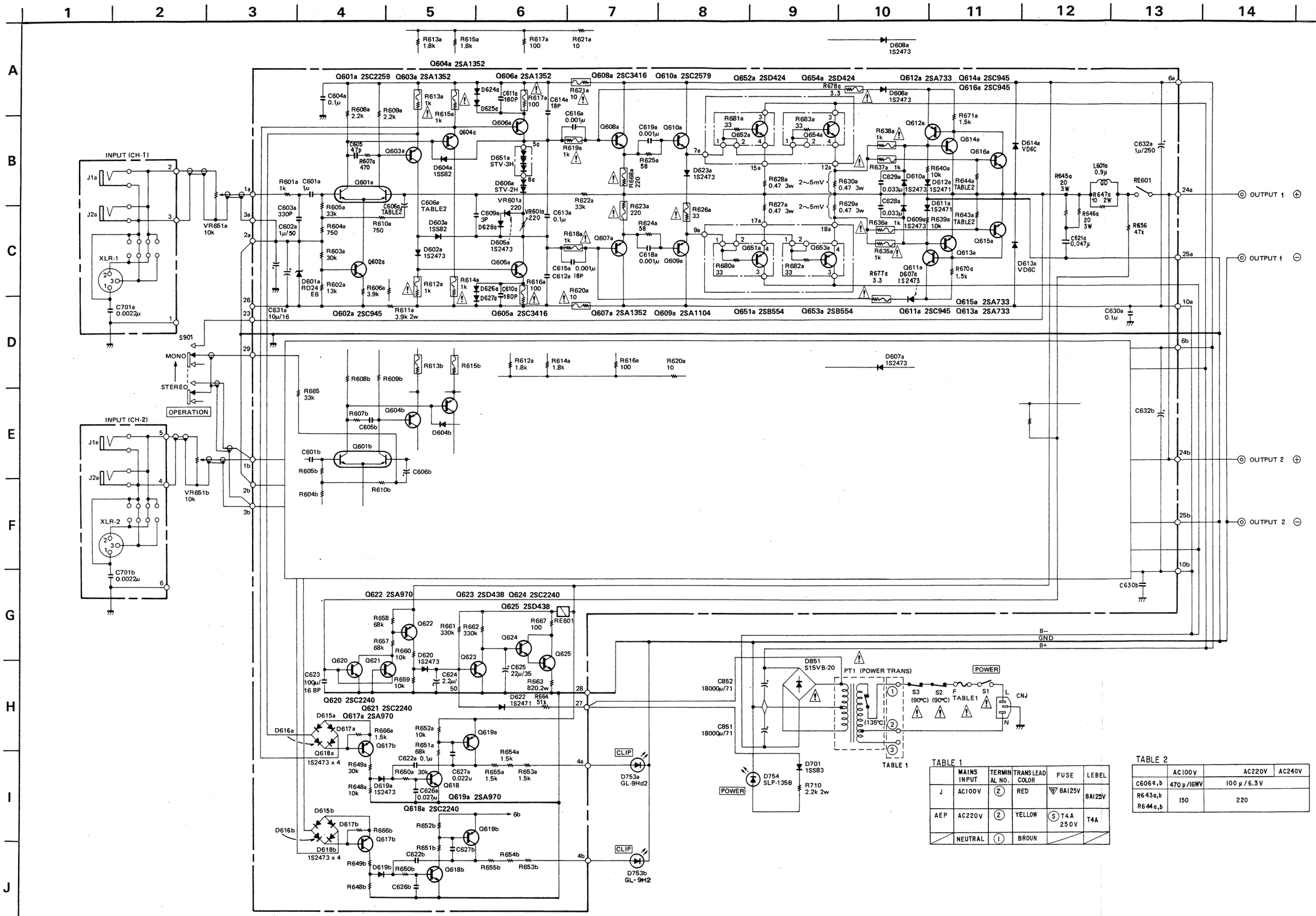


TABLE 1

	MAINS INPUT	TERMINAL NO.	TRANS LEAD COLOR	FUSE	LEBEL
J	AC100V	②	RED	▽ 8A125V	8A125V
AEP	AC220V	②	YELLOW	Ⓢ T4A 250V	T4A
	NEUTRAL	①	BROUN		

TABLE 2

	AC100V	AC220V	AC240V
C606a,b	470μ/16WV	100μ/6.3V	
R643a,b R644a,b	150	220	

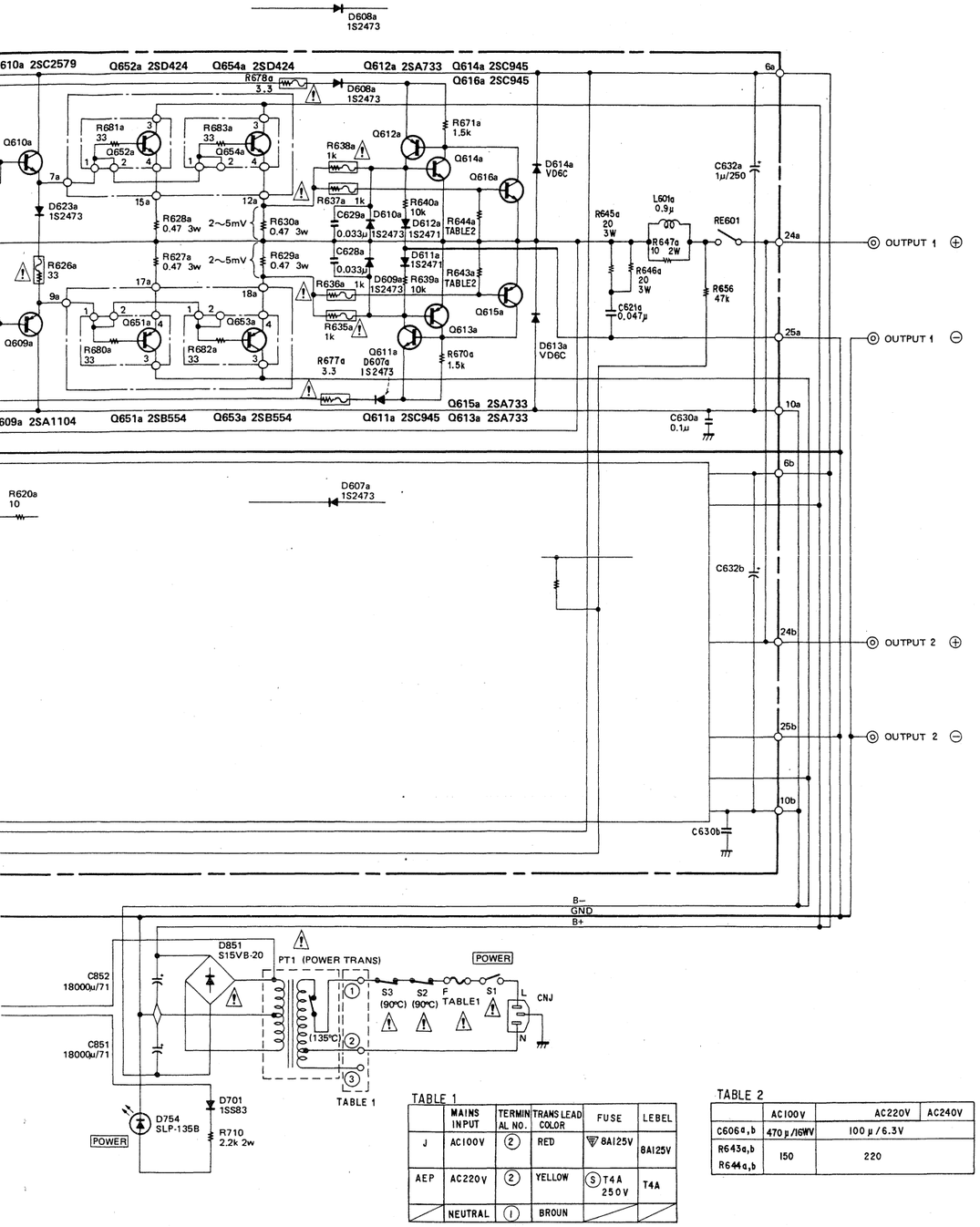


TABLE 1

	MAINS INPUT	TERMINAL NO.	TRANS LEAD COLOR	FUSE	LEBEL
J	AC100V	②	RED	▽ 8A125V	8A125V
AEP	AC220V	②	YELLOW	Ⓢ T4A 250V	T4A
	NEUTRAL	①	BROWN		

TABLE 2

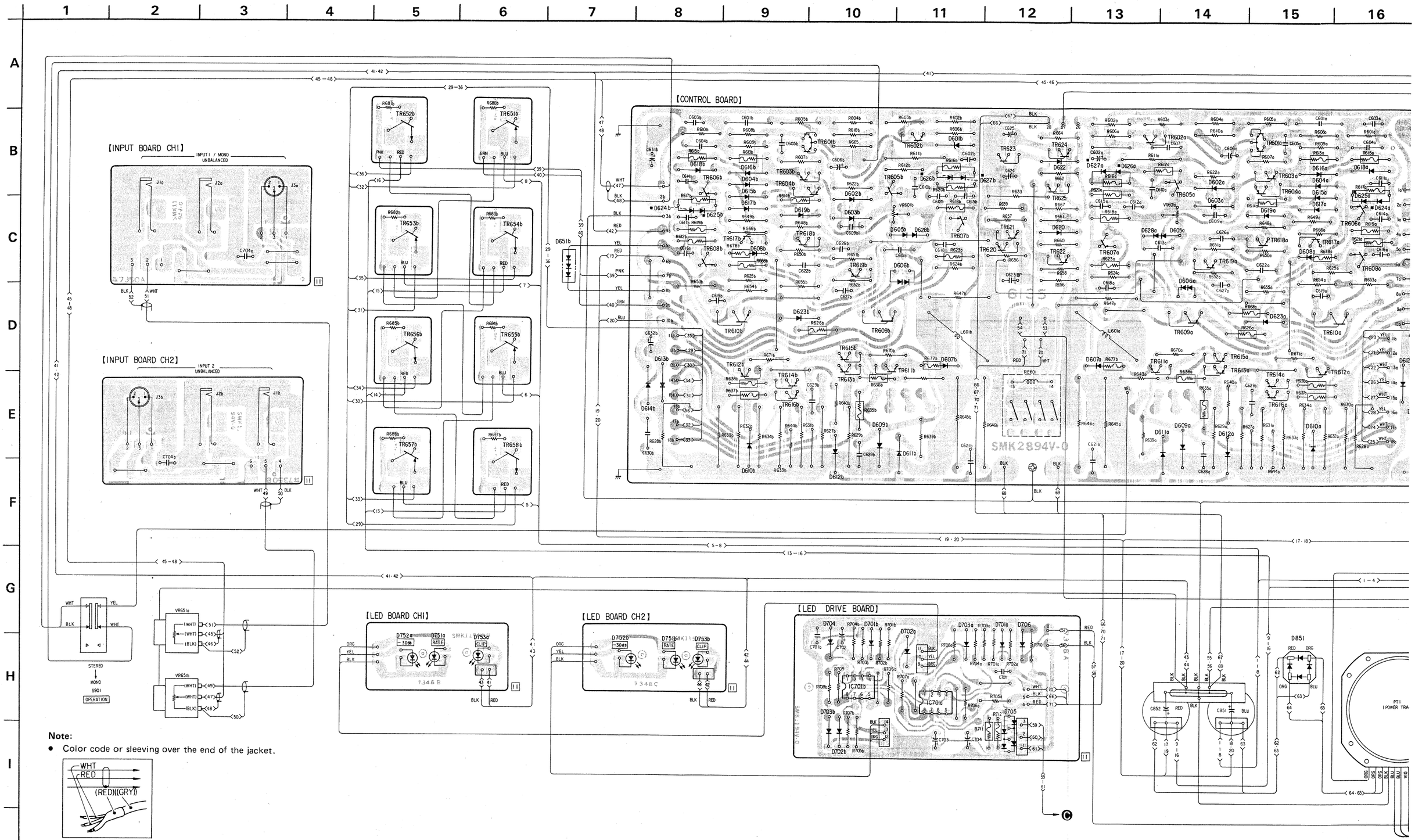
	AC100V	AC220V	AC240V
C606a,b	470μ/16WV	100μ/6.3V	
R643a,b R644a,b	150	220	

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ⚠ : fusible resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

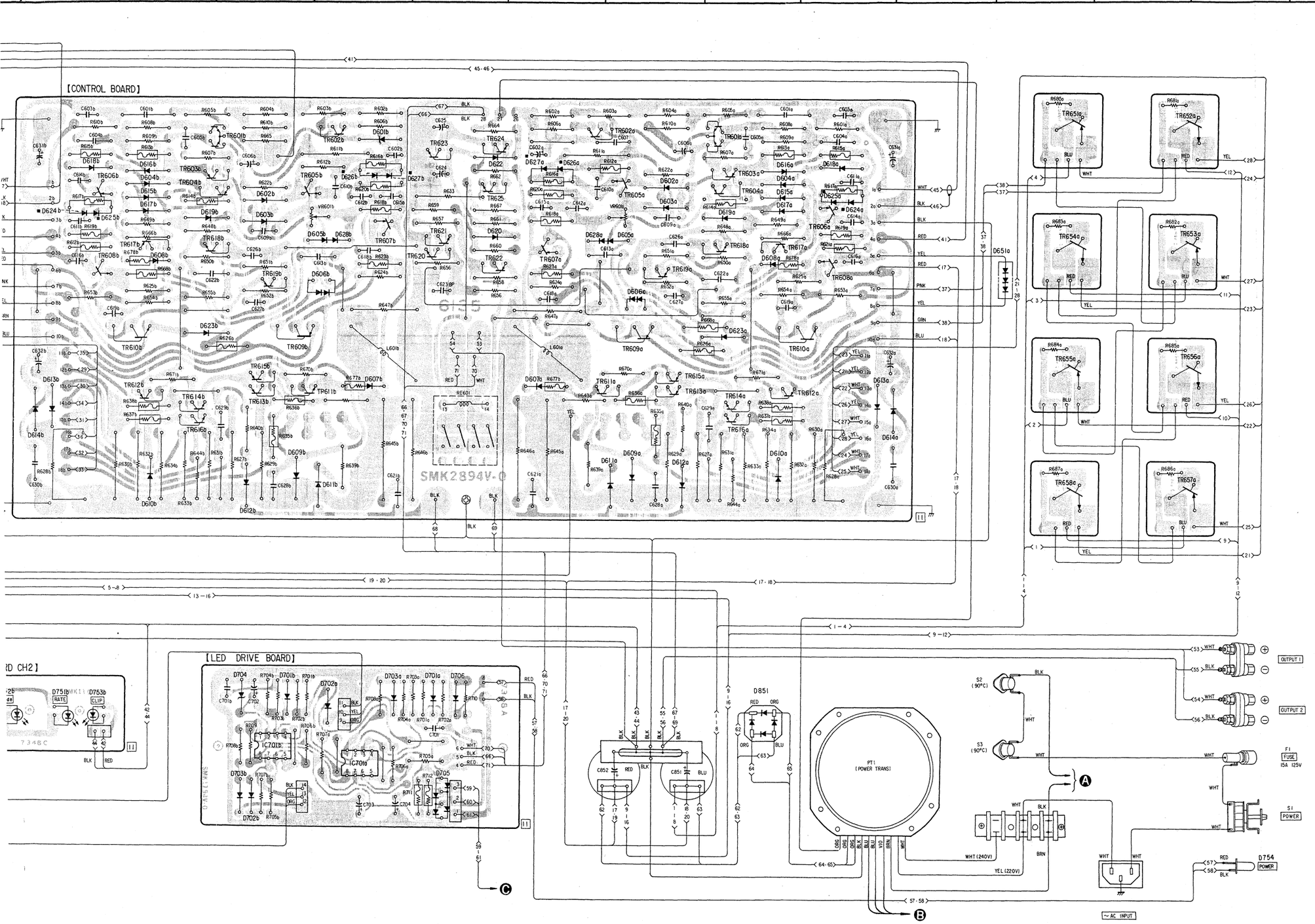
PRINTED WIRING BOARDS (MU-A301)



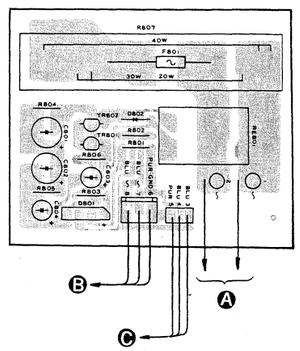
Note:

- Color code or sleeving over the end of the jacket.

- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.



INRUSH CURRENT PRIVENTIVE BOARD



SCHEMATIC DIAGRAM (MU-A301)

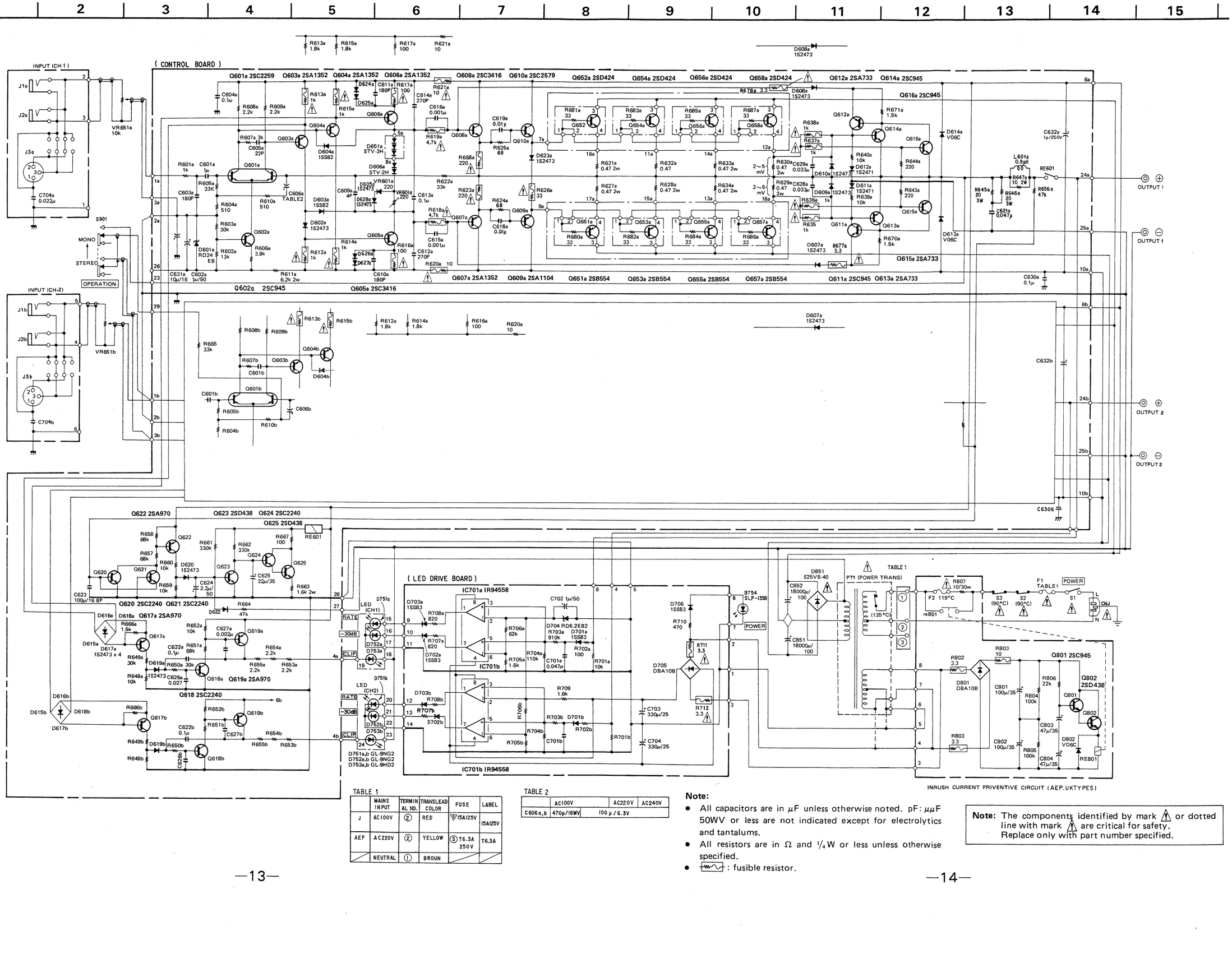


TABLE 1

	MAINS INPUT	TERMINAL NO.	TRANSLEAD COLOR	FUSE	LABEL
J	AC100V	②	RED	▽ 15A/125V	15A/125V
AEP	AC220V	②	YELLOW	Ⓢ T6.3A 250V	T6.3A
	NEUTRAL	①	BROWN		

TABLE 2

	AC100V	AC220V	AC240V
C606a,b	470μ/16WV	100μ/6.3V	

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⚠ : fusible resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.